		DEPARTMENT C		OF UTAH NATURAL RESOURCES AMENDED F L, GAS AND MINING				T <b>P</b>	
APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER  NBU 922-33ET			
2. TYPE OF WORK  DRILL NEW WELL	REENTER P8	&A WELL DEEPEN	I WELL			3. FIELD OR WILDO	CAT NATURAL BUTTES		
4. TYPE OF WELL Gas W	ell Coalb	ped Methane Well: NO				5. UNIT or COMMU	NITIZATION AGREI NATURAL BUTTES	EMENT NAME	
6. NAME OF OPERATOR KERR	-MCGEE OIL & G	GAS ONSHORE, L.P.				7. OPERATOR PHO	<b>NE</b> 720 929-6587		
8. ADDRESS OF OPERATOR P.C	). Box 173779, D	Denver, CO, 80217				9. OPERATOR E-MA mary.m	IL ondragon@anadarko	.com	
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		11. MINERAL OWNER		_	-	12. SURFACE OWN	_	<u> </u>	
UTU-01191A  13. NAME OF SURFACE OWNER (if box 12	= 'fee')	FEDERAL ( INDIA	AN 💮 STATE (	<u> </u>	FEE (	FEDERAL INI	DIAN STATE (	~ ~	
·									
15. ADDRESS OF SURFACE OWNER (if box	(12 = Tee')					16. SURFACE OWN	EK E-MAIL (IT DOX I	.z = 'tee')	
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COMM MULTIPLE FORMATIO			_	19. SLANT	_	_	
		YES (Submit Cor	mmingling Applicat	ion)	NO 📵	VERTICAL DIF	RECTIONAL ( H	ORIZONTAL (	
20. LOCATION OF WELL	FO	OOTAGES	QTR-QTR		SECTION	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE	2446 F	NL 673 FWL	SWNW		33	9.0 S	22.0 E	S	
Top of Uppermost Producing Zone	2446 F	NL 673 FWL	SWNW		33	9.0 S	22.0 E	S	
At Total Depth	2446 F	NL 673 FWL	SWNW		33	9.0 S 22.0 E S			
21. COUNTY  UINTAH		22. DISTANCE TO NEA	AREST LEASE LIN 673	E (Fe	et)	23. NUMBER OF AC	RES IN DRILLING	JNIT	
		25. DISTANCE TO NEA (Applied For Drilling of		AME	POOL	26. PROPOSED DEF	PTH MD: 9000 TVD:		
27. ELEVATION - GROUND LEVEL 4935		28. BOND NUMBER	WYB000291			29. SOURCE OF DR. WATER RIGHTS AP			
		АТТ	TACHMENTS						
VERIFY THE FOLLOWING	ARE ATTACH	IED IN ACCORCANCI	E WITH THE UT	ГАН (	OIL AND (	GAS CONSERVATI	ON GENERAL RU	LES	
<b>✓</b> WELL PLAT OR MAP PREPARED BY	LICENSED SUR	RVEYOR OR ENGINEER	<b>№</b> сом	IPLET	E DRILLING	6 PLAN			
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE) FORM 5. IF OPERATOR IS OTHER THA					R IS OTHER THAN T	HE LEASE OWNER			
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY TOP				OGRA	PHICAL MA	Р			
NAME Kevin McIntyre	тг	<b>TLE</b> Regulatory Analyst I			PHONE 72	20 929-6226			
SIGNATURE	DA	ATE 09/03/2008			EMAIL Ke	vin.McIntyre@anadark	o.com		
<b>API NUMBER ASSIGNED</b> 43047500800000	АР	PROVAL			Bol	Scylll			
Permit Manager									

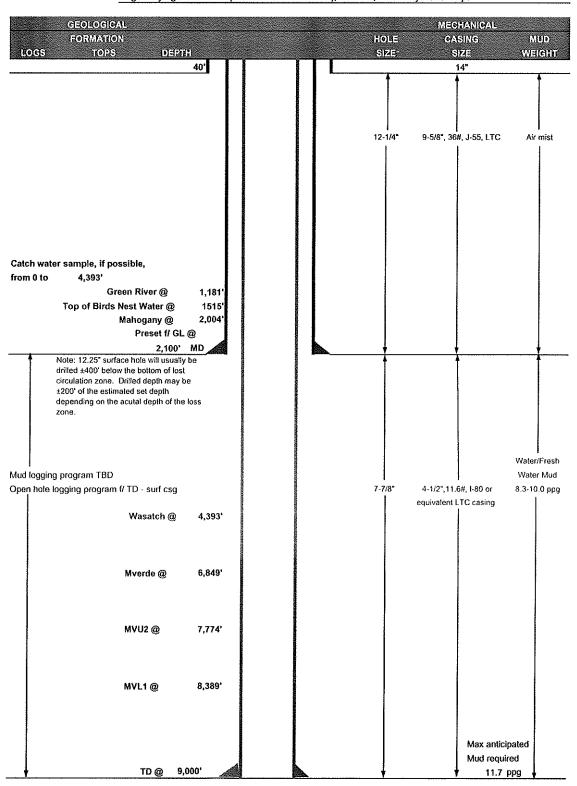
	Proposed Hole, Casing, and Cement									
String	String Hole Size Casing Size Top (MD) Bottom (MD)									
Surf	12.25	9.625	0	2100						
Pipe	Grade	Length	Weight							
	Grade J-55 LT&C	2100	36.0							
	Cement Interval	Top (MD)	Bottom (MD)							
		0	2100							
		<b>Cement Description</b>	Class	Sacks	Yield	Weight				
			Premium Foamed Cement	215	1.18	15.6				

	Proposed Hole, Casing, and Cement										
String	ng Hole Size Casing Size Top (MD) Bottom (MD)										
Prod	7.875	4.5	0	9000							
Pipe	Grade	Length	Weight								
	Grade I-80 LT&C	9000	11.6								
	<b>Cement Interval</b>	Top (MD)	Bottom (MD)								
		0	9000								
		<b>Cement Description</b>	Class	Sacks	Yield	Weight					
			Premium Lite High Strength	430	3.38	11.0					
			Pozzuolanic Cement	1430	1.31	14.3					



#### KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPAN	Y NAME _ I	KERR-McGEE OIL	. & GAS ONS	SHORE LP	DATE	August 15, 2008				
WELL NA	AME I	NBU 922-33E	Γ		TD	9,000'	MD/TVD			
FIELD	Natural Butte	s CO	UNTY Uinta	h STATE	Utah	ELEVATION	4,935'	GL.	KB	4,950'
SURFAC	E LOCATION	SWNW 2446' F	NL & 673' FV	VL, SEC. 33, T9	S, R22E				BHL	Straight Hole
		Latitude: 39	.993117	Longitude: -10	9.451336		NAD 27			
OBJECT	IVE ZONE(S)	Wasatch/Mesav	verde							
ADDITIO	NAL INFO	Regulatory Age	ncies: BLM	MINERALS & S	URFACE), U	DOGM, Tri-Co	unty Health D	Dept.		





#### API Well No: 43047500800000 KerrNCGee

#### KERR-McGEE OIL & GAS ONSHORE LP **DRILLING PROGRAM**

#### CASING PROGRAM

							ESIGN FACT	ors
	SIZE	INTERVAL	WIT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14° Les Vergentiè	0-40'	1 13 41		3874.F	3520	2020	453000
SURFACE	9-5/8*	0 to 2100	36.00	J-55	LTC	1.01 7780	2.06 6350	7.63 201000
PRODUCTION	4-1/2"	0 to 9000	11.60	I-80	LTC	2.23	1.16	2.21

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.7 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 3600 psi

#### CEMENT PROGRAM

			5. vid for any one for more reasoning		naturamentusiante de encre conserva	-1
	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1	·	+ .25 pps flocele	la de la composição de la			
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
	Na America	+ 2% CaCl + .25 pps flocete		11.4		The state of the s
TOP OUT CMT (2	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to su	rface, opt	ion 2 will be	utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
·		+.25 pps Flocele + 3% sall BWOC	1 4.5.5.5	1,7,77414	o salina	
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ .25 pps flocele			·	
ТОР ОЦТ СМТ	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
	1,111,111		1 1 1			:
PRODUCTION LEAD	3,890'	Premium Lite II + 3% KCI + 0.25 pps	430	60%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,110'	50/50 Poz/G + 10% salt + 2% gel	1430	60%	14.30	1.31
		+.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

rest ca	sing near to	750 psi aitei	Ristanng.	Lezi annace	casing to	1,aug psi þ	nor to triaing	out.
BOPE:	11" 5M with	one annular	and 2 rams	. Test to 5.0	00 osi (ar	nular to 2.5	00 osi) orior	lo da

rilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Tolco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PV1 Systems	s for mud monitoring. If no PV I is available, visual monitoring will be i	JUHIZEG.
DRILLING ENGINEER:		DATE:
	Brad Laney	
DRILLING SUPERINTENDENT:		DATE:
	Randy Rayne NRU 922-33FT xis	

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

# NBU 922-33ET Twin to CIGE 109D SWNW Sec. 33, T9S,R22E UINTAH COUNTY, UTAH UTU-01191A

#### **ONSHORE ORDER NO. 1**

#### DRILLING PROGRAM

#### 1. <u>Estimated Tops of Important Geologic Markers:</u>

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1181'
Bird's Nest	1515'
Mahogany	2004'
Wasatch	4393'
Mesaverde	6849'
MVU2	7774'
MVL1	8389'
TD	9000'

#### 2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<b>Formation</b>	<u>Depth</u>
	Green River	1181'
	Bird's Nest	1515'
	Mahogany	2004'
Gas	Wasatch	4393'
Gas	Mesaverde	6849'
Gas	MVU2	7774'
Gas	MVL1	8389'
Water	N/A	
Other Minerals	N/A	

#### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

#### 4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP.

#### 5. **Drilling Fluids Program:**

Please see the Natural Buttes Unit SOP.

API Well No: 43047500800000

#### 6. <u>Evaluation Program:</u>

Please see the Natural Buttes Unit SOP.

#### 7. <u>Abnormal Conditions:</u>

Maximum anticipated bottomhole pressure calculated at 9000' TD, approximately equals 5580 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3600 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

#### 9. <u>Variances:</u>

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

#### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

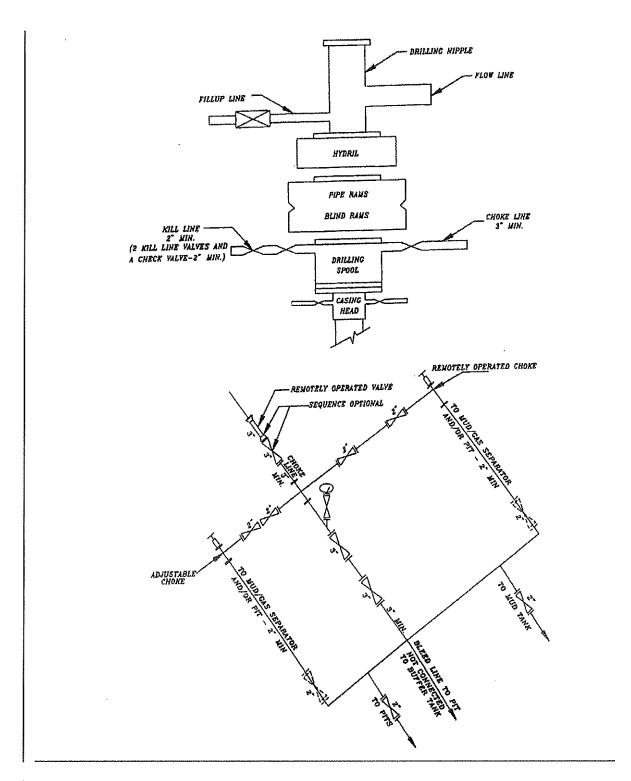
#### 10. Other Information:

Please see Natural Buttes Unit SOP.

API Well No: 43047500800000

NBU 922-33ET

#### **EXHIBIT A**



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

**NBU 922-33ET** 

#### NBU 922-33ET Twin to CIGE 109D **SWNW Sec. 33, T9S, R22E** UINTAH COUNTY, UTAH UTU-01191A

#### ONSHORE ORDER NO. 1

#### MULTI-POINT SURFACE USE & OPERATIONS PLAN

#### 1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

#### 2. Planned Access Roads:

No new access road is planned, as this is a twin location. Refer to Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

#### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

#### 4. Location of Existing & Proposed Facilities:

No new pipeline, as we will be utilizing the existing CIGE #109D pipeline. No TOPO D attached.

Please see the Natural Buttes Unit SOP.

#### Variances to Best Management Practices (BMPs) Requested:

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Carlsbad Canyon Brown (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the

original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

#### 5. <u>Location and Type of Water Supply:</u>

Please see the Natural Buttes SOP.

#### 6. Source of Construction Materials:

Please see the Natural Buttes SOP.

#### 7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (Request is in lieu of filing Form 3160-5, after initial production).

#### 8. Ancillary Facilities:

Please see the Natural Buttes SOP.

#### 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

#### **NBU 922-33ET**

#### 10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

upon reclamation of the pit the following seed mixture will be used. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Crested Wheatgrass 12 lbs.

Operator shall call the BLM for the seed mixture when final reclamation occurs.

#### 11. <u>Surface/Mineral Ownership:</u>

The well pad, access road, pipeline and mineral ownership are listed below:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### 12. Stipulations/Notices/Mitigation:

No Stipulations at this well location.

#### 13. Other Information:

A Class III archaeological survey and a paleontological survey have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

#### 14. Lessee's or Operator's Representative & Certification:

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6226 Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

NBU 922-33ET

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Nationwide Bond #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Kevin McIntyre Bate

### Kerr-McGee Oil & Gas Onshore LP NBU #922-33ET SECTION 33, T9S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND Α SOUTHEASTERLY, THEN IΝ EASTERLY APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; RIGHT **AND** PROCEED IN Α SOUTHWESTERLY, DIRECTION APPROXIMATELY 4.0 MILES SOUTHEASTERLY JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHERLY DIRECTION APPROXIMATELY 2.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE BEGINNING OF THE EXISTING ACCESS ROAD TO THE SOUTHEAST; PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.4 MILES.

API Well No: 43047500800000

## KERR-MCGEE OIL & GAS ONSHORE LP

NBU #922-33ET LOCATED IN UINTAH COUNTY, UTAH SECTION 33, T9S, R22E, S.L.B.&M.

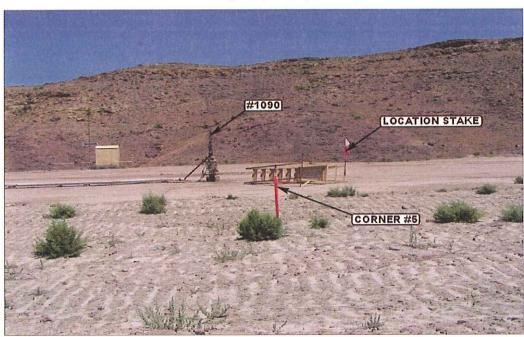


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY

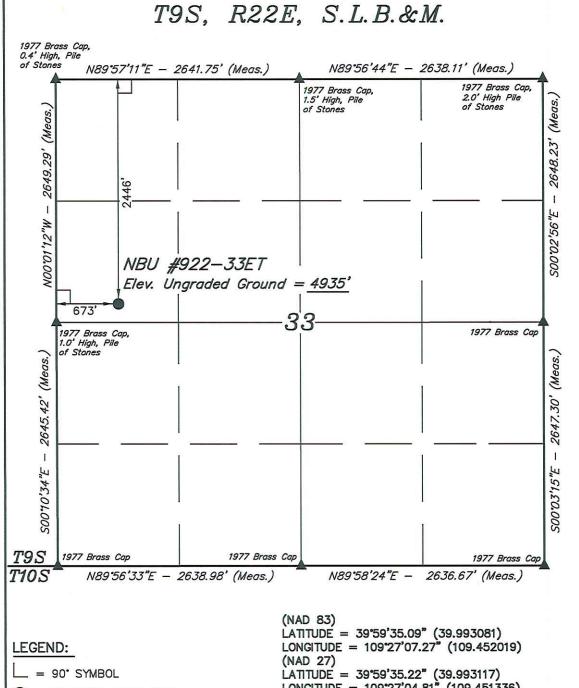


PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: SOUTHEASTERLY



LOCATION	PHOTOS	07 MONTH	07 DAY	08 YEAR	рното
TAKEN BY: D.K.	DRAWN BY: J.	J. REV	ISED: (	8-08-08	



= PROPOSED WELL HEAD.

= SECTION CORNERS LOCATED.

#### Kerr-McGee Oil & Gas Onshore LP

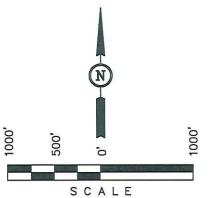
Well location, NBU #922-33ET, located as shown in the SW 1/4 NW 1/4 of Section 33, T9S, R22E, S.L.B.&M. Uintah County, Utah.

#### BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

#### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



THIS IS TO CERTIFY THAT THE ABOVE PART HAS PREPARED FROM SUPERVISION AND THAT THE SAME AND THE THE AND CORRECT BEST OF MY KNOWLEDGE AND BELIEF

> REGISTED LAND SURVEYOR REGISTRATION NO. 161319 STATE OF CHAMPE OF U

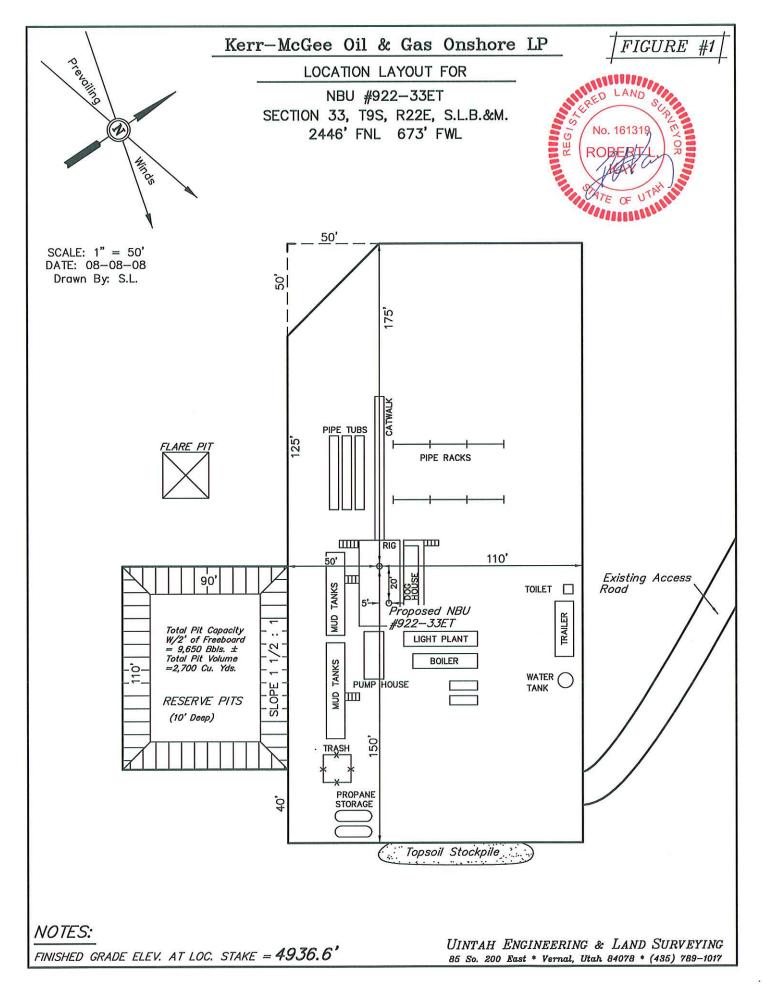
> > Kerr-McGee Oil & Gas Onshore LP

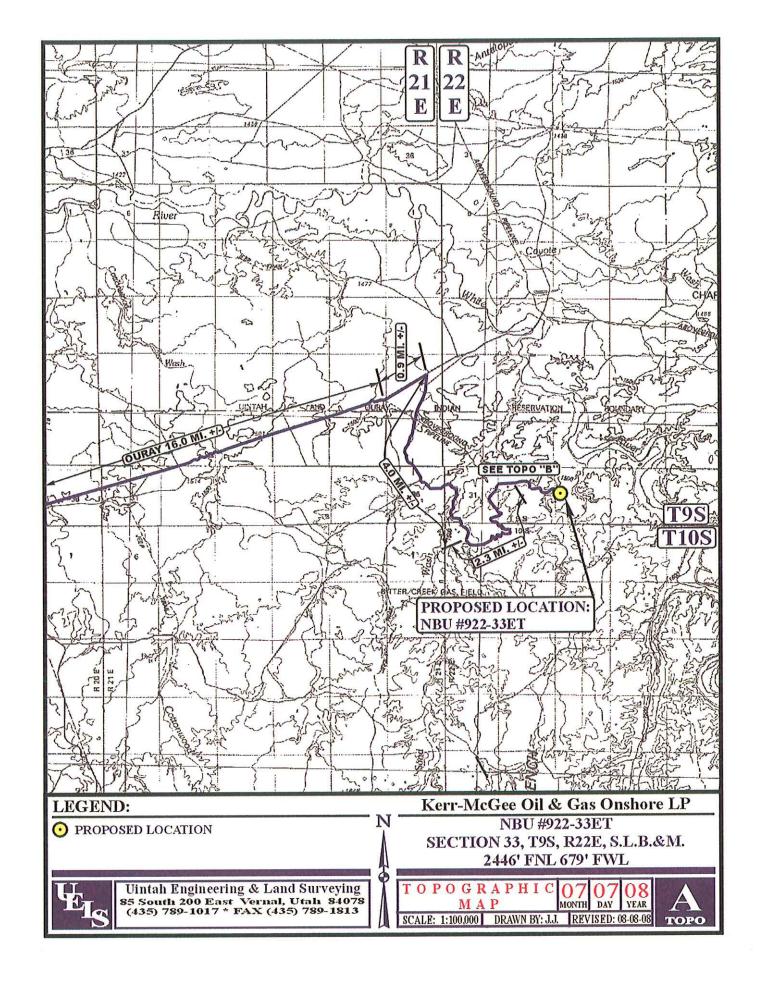
#### UINTAH ENGINEERING VERNAL, UTAH 84078 85 SOUTH 200 EAST -(435) 789-1017

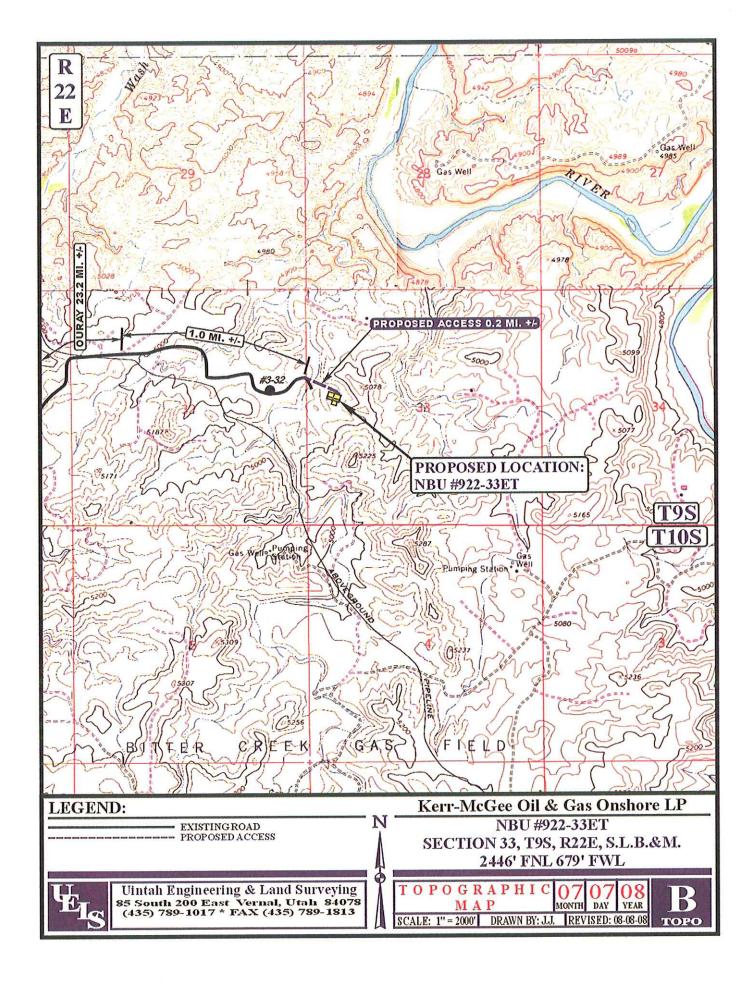
DATE SURVEYED: DATE DRAWN: SCALE 1" = 100008-03-08 08-08-08 REFERENCES PARTY C.K. D.K. S.L. G.L.O. PLAT WEATHER

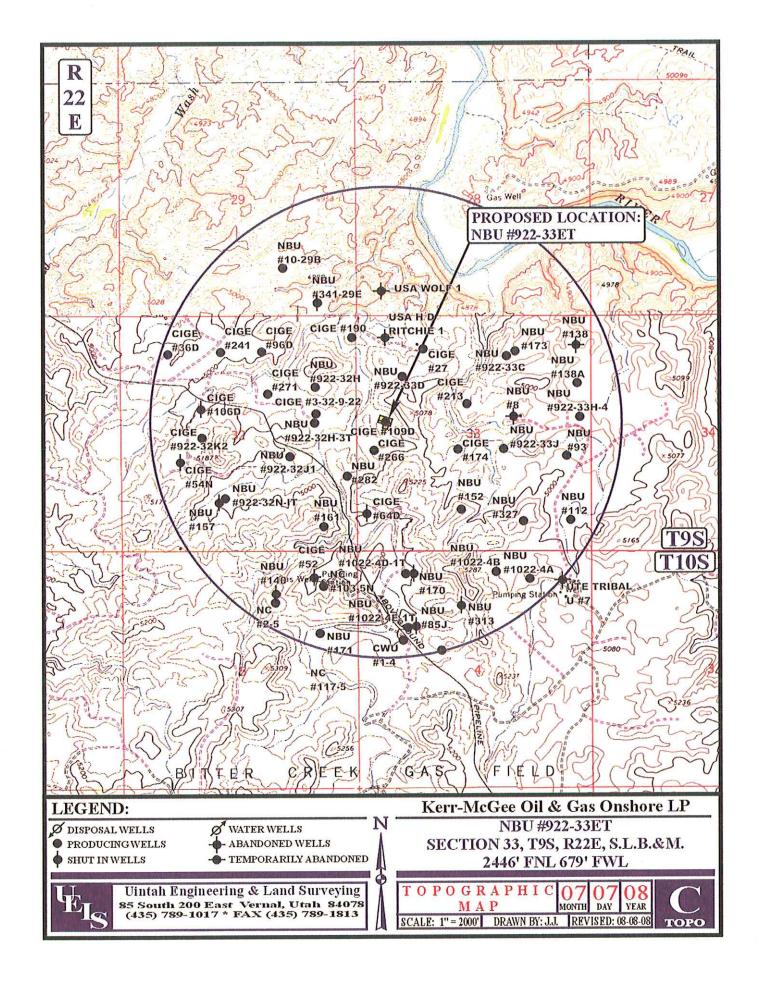
WARM

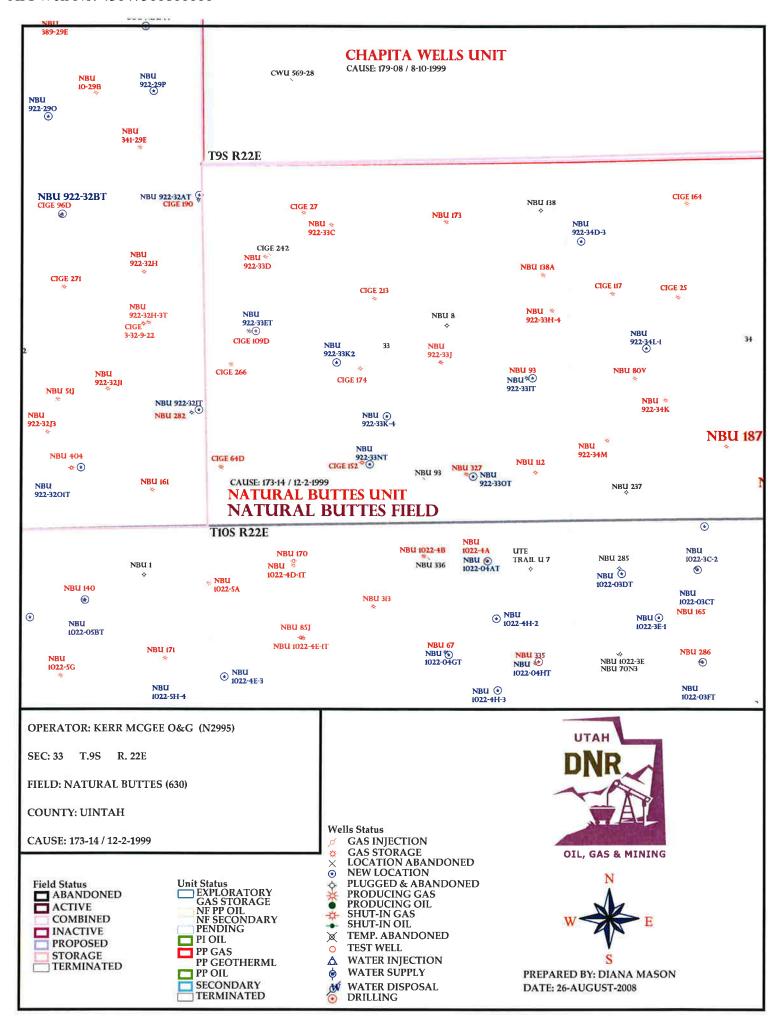
LONGITUDE = 109°27'04.81" (109.451336)











### **United States Department of the Interior**

#### **BUREAU OF LAND MANAGEMENT**

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

September 2, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ Wasatch/MesaVerde)

43-047-50098 NBU 1022-27A Sec 27 T10S R22E 1058 FNL 0413 FEL 43-047-50095 NBU 1022-34E Sec 34 T10S R22E 1687 FNL 1113 FWL 43-047-50094 NBU 1022-35M Sec 35 T10S R22E 0683 FSL 1058 FWL 43-047-50093 NBU 1022-34F Sec 34 T10S R22E 1632 FNL 2266 FWL 43-047-50080 NBU 922-33ET Sec 33 T09S R22E 2446 FNL 0673 FWL 43-047-50084 NBU 1022-22N Sec 22 T10S R22E 0515 FSL 2467 FWL 43-047-50086 NBU 1022-1P Sec 01 T10S R22E 0310 FSL 0971 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

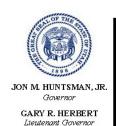
bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron

Fluid Chron

MCoulthard:mc:9-2-08

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:	8/21/2008	API NO. ASSIGNED:	43047500800000
	NBU 922-33ET		
OPERATOR:	KERR-MCGEE OIL & GAS ONSHORE,	, L.P. (N2995) PHONE NUMBER:	720 929-6226
CONTACT:	Kevin McIntyre		
PROPOSED LOCATION:	SWNW 33 090S 220E	Permit Tech Review:	
SURFACE:	2446 FNL 0673 FWL	Engineering Review:	
воттом:	2446 FNL 0673 FWL	Geology Review:	
COUNTY:	UINTAH		
LATITUDE:	39.99309	LONGITUDE:	-109.45123
UTM SURF EASTINGS:	632222.00	NORTHINGS:	4427929.00
FIELD NAME:	NATURAL BUTTES		
LEASE TYPE:	1 - Federal		
LEASE NUMBER:	UTU-01191A	PROPOSED FORMATION:	WSMVD
SURFACE OWNER:	1 - Federal	COALBED METHANE:	NO
RECEIVED AND/OR REVI	EWED:	LOCATION AND SITING:	
<b></b> PLAT		R649-2-3.	
<b>☑</b> Bond: FEDERAL - WYE	3000291	Unit: NATURAL BUTTES	
Potash		R649-3-2. General	
☑️ Oil Shale 190-5			
Oil Shale 190-3		R649-3-3. Exception	
Oil Shale 190-13		✓ Drilling Unit	
<b>✓ Water Permit:</b> Water	permit # 43-8496	<b>Board Cause No:</b> 173-14	
RDCC Review:		Effective Date: 12/22/1999	
Fee Surface Agreem	ent	Siting: 460' fr u bdry & uncomm. trac	t
Intent to Commingle	<b>à</b>	R649-3-11. Directional Drill	
Comments: Presite (	Completed		
<b>Stipulations:</b> 4 - Fed 17 - Oil	eral Approval - dmason Shale 190-5(b) - dmason		



### State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

#### Permit To Drill

\*\*\*\*\*\*

Well Name: NBU 922-33ET
API Well Number: 43047500800000
Lease Number: UTU-01191A
Surface Owner: FEDERAL

Approval Date: 9/11/2008

#### **Issued to:**

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

#### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of CAUSE: 173-14.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

#### **Notification Requirements:**

Notify the Division with 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

API Well No: 43047500800000

#### **Reporting Requirements:**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

**Approved By:** 

Gil Hunt

Associate Director, Oil & Gas

Til Hut

Form 3160-3 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR FIELD OFFICE BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

5.	Lease Serial	No.
UTU	J-01191A	

APPLICATION FOR PERMIT TO DRILL OR REENTER 19

		~			1.5
N/A	II IIIGI	an, Anoto	01	THUG NAME	

	•					
a. Type of work: DRILL REENTER DEST OF THE INTERIOR BUREAU OF LAND MGMT			7 If Unit or CA Agreement, Name and No. 891008900A			
b. Type of Well: ☐ Oil Well				8. Lease Name and Well No. NBU 922-33ET		
2. Name of Operator		<del></del>		9. API Well No.		
Kerr-McGee Oil & Gas Onshore, LP				43 047	50080	
3a. Address	3b. Phone N	0. (include area code)		10. Field and Pool, or Exploratory		
P.O. Box 173779, Denver, CO 80217-3779	720.929.6	3226		Natural Buttes Field		
4. Location of Well (Report location clearly and in accordance with a	ny State require	ments.*)		11. Sec., T. R. M. or Blk	and Survey or Area	
At surface SWNW 2446' FNL & 673' FWL LAT 39.993	117 LON -1	09.451336 (NAD 2	7)	Sec. 33, T 9S, R 225	•	
At proposed prod. zone N/A						
14. Distance in miles and direction from nearest town or post office* 24.2 miles northeast of Ouray, Utah				12. County or Parish Uintah	13. State UT	
15. Distance from proposed* 673'		acres in lease	17. Spacin	7. Spacing Unit dedicated to this well		
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	1363.21 40					
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	171 Poposed Dopin		20. BLM/ WYB00	MBIA Bond No. on file 00291		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Approx	imate date work will st	_L art*	23. Estimated duration		
4,935' GL				10 days		
	24. Atta	chments				
The following, completed in accordance with the requirements of Onshe	ore Oil and Gas	Order No.1, must be	attached to th	is form:	·	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>		Bond to cover ltem 20 above)     Operator certif	the operation	ons unless covered by an e		
25. Signature		Name (Printed Typed) Kevin MoIntyre		1	Date 08/15/2008	
Title Regulatory Analyst I						

Regulatory Analyst

Approved by (Signature)

VERWAL FIELD OFFICE

Date APR 24 2009

Assistant Field Manager

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to

conduct operations thereon.
Conditions of approval, if any, are attacked ONDITIONS OF APPROVAL ATTACK

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fletitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)-

NOTICE OF APPROVAL

Name (Printed Typed)

\*(Instructions on page 2)

NOS APD POSTED 8753008'
AFMSS# 085x50217A

RECEIVED
APR 2 9 2009





# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-440(



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:

Kerr McGee Oil & Gas, LP

Location:

SWNW, Sec. 33, T9S, R22E

Well No: API No: NBU 922-33ET 43-047-50080 Lease No: Agreement:

UTU-01191A Natural Buttes Unit

Title	Name	Office Phone Number	Cell Phone Number	
Petroleum Engineer	Michael Lee	(435) 781-4432	(435) 828-7875	
Petroleum Engineer	Ryan Angus	(435) 781-4430	(435) 828-7368	
Supervisory Petroleum Technician:	Jamie Sparger	(435) 781-4502	(435) 828-3913	
Supervisory NRS	Karl Wright	(435) 781-4484		
NRS/Enviro Scientist	Christine Cimiluca	(435) 781-4475		
NRS/Enviro Scientist	Dan Emmett	(435) 781-3414	(435) 828-4029	
NRS/Enviro Scientist	Anna Figueroa	(435) 781-3407	(435) 828-3548	
NRS/Enviro Scientist	Lori Ford	(435) 781-4406		
NRS/Enviro Scientist	David Gordon	(435) 781-4424		
NRS/Enviro Scientist	James Hereford	(435) 781-3412	(435) 828-3546	
NRS/Enviro Scientist	Chuck Macdonald	435) 781-4441	(435) 828-7481	
NRS/Enviro Scientist	Nathan Packer	(435) 781-3405	(435) 828-3545	
NRS/Enviro Scientist	Paul Percival	(435) 781-4493	(435) 828-7381	
NRS/Enviro Scientist	Verlyn Pindell	(435) 781-3402	(435) 828-3547	
NRS/Enviro Scientist	Holly Villa	(435) 781-4404	(435) 828-3544	
		Fax: (435) 781-3420		

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

. <u>NOI</u>	<u> 11 1</u>	CATION REQUIREMENTS	
Location Construction		Forty-Eight (48) hours prior to construction of location and	
(Notify Environmental Scientist)		access roads.	
Location Completion	-	Prior to moving on the drilling rig.	
(Notify Environmental Scientist)			
Spud Notice	-	Twenty-Four (24) hours prior to spudding the well.	
(Notify Petroleum Engineer)			
Casing String & Cementing	-	Twenty-Four (24) hours prior to running casing and cementing	
(Notify Supv. Petroleum Tech.)		all casing strings.	
BOP & Related Equipment Tests		Twenty-Four (24) hours prior to initiating pressure tests.	
(Notify Supv. Petroleum Tech.)			
First Production Notice	-	Within Five (5) business days after new well begins or	
(Notify Petroleum Engineer)		production resumes after well has been off production for more	
		than ninety (90) days.	

Page 2 of 9 Well: NBU 922-33ET 4/21/2009

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

#### SITE SPECIFIC COAs: NBU 922-33ET

#### DOI-BLM-UT-G010-2009-0345-EA

- Surface Conditions of Approval or monitoring are listed in the Surface Use Plan of the APDs.
- Spot monitor the construction of the pit by a qualified, permitted paleontologist. Report all
  mitigation-curation of vertebrates and other scientifically significant fossils that may be affected by
  the construction.
- During operations, if any vertebrate paleontological resources are discovered, in accordance with Section 6 of Form 3100-11 and 43CFR 3162.1, all operations affecting such sites shall be immediately suspended, and all discoveries shall be left intact until authorized to proceed by the Authorized Officer. The appropriate Authorized Officer of the Vernal BLM office shall be notified within 48 hours of the discovery, and a decision as to the preferred alternative/course of action will be rendered.
- An Interim Surface Reclamation Plan for surface disturbance on the well pad, access road, and pipeline will be completed. At a minimum, this will include the Best Management Practice of the reshaping of the pad to the original contour to the extent possible; the re-spreading of the top soil up to the rig anchor points; and, reseeding the area using appropriate reclamation methods. The areas of the location not needed for production operations, including portions of the pad and the reserve pits, will have the stock piled top soil spread evenly over the reclaimed surface, and be seeded with the recommended seed mix shown below. If it is determined that this well site will be used as a multiwell site the interim reclamation will be delayed until all wells are constructed at the site.

Page 3 of 9 Well: NBU 922-33ET 4/21/2009

#### • Interim Reclamation seed mix

Agropyron cristatum	3 lbs. /acre
Stipa comat	3 lbs. /acre
Spaeralcea coccinea	1 lbs. /acre
Ātriplex confertifolia	2 lbs. /acre
Atriplex canescens	3 lbs. /acre
	Stipa comat Spaeralcea coccinea Atriplex confertifolia

• Following well plugging and abandonment, the location, access roads, pipelines, and other facilities shall be reclaimed. All disturbed surfaces shall be reshaped to approximate the original contour; the top soil re-spread over the surface; and, the surface re-vegetated. The surface of approved staging areas where construction activities did not occur may require disking or ripping and reseeding.

#### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Surface casing cement shall be brought up and into the surface. Top of Cmnt is to reach surf. For the Surface casing cementing program (operator's specified Option 1 where well does not circulate water), operator is required to pump additional cement beyond the stated amounts in application.
- Production casing cement shall be brought up and into the surface casing. Production casing minimum cement top is 1400 ft. The minimum cement top is approximately 0700 ft above the surface casing shoe.
  - Cmnt Top (TOC) standard will place cmnt behind casing across formation lost circulation zone, Birds Nest Zone.
  - COA specification fulfills operators performance standard stated in APD (where operators toc is calc'd with an excess to reach surface).
- Operator is to notify BLM Vernal Field Office and active gilsonite mining operator (or lease holder) located within a 2 mile radius, 48 hours prior to pad explosives blasting. Well is not close to gilsonite vein, but on trend to gilsonite vein deposits.
- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Drilling plan specifics and practices are referenced in the Kerr McGee Oil & Gas Standard
  Operating Procedures (SOP version: July 28, 2008). The operators drilling plan items 3 to 9
  reference the SOP. Kerr McGee shall adhere to the referenced requirements in the SOP.
  Kerr McGee and their contractors shall adhere to all Oil and Gas rules and requirements listed in the
  Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where variances
  have been granted.
- Covering air/gas drilling operations, requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.
- A Gamma Ray well Log shall be run from the well Total Depth to the surface.
   A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.

Page 5 of 9 Well: NBU 922-33ET 4/21/2009

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- <u>Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.</u>
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

Page 6 of 9 Well: NBU 922-33ET 4/21/2009

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - o Well location (1/41/4, Sec., Twn, Rng, and P.M.).
  - o Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - O Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

Page 8 of 9 Well: NBU 922-33ET 4/21/2009

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.
- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval of
  the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

Page 9 of 9 Well: NBU 922-33ET 4/21/2009

• Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

	STATE OF UTAH		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A		
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for propo- bottom-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen exi ugged wells, or to drill horizontal laterals. Use	sting wells below current APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33ET
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047500800000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2446 FNL 0673 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWNW Section: 33	IP, RANGE, MERIDIAN: 3 Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Kerr-McGee Oil & Ga extension to this A	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  DMPLETED OPERATIONS. Clearly show all pertine as Onshore, L.P. (Kerr-McGee) report to the maximum time allower with any questions and/or committed.	espectfully requests an ed. Please contact the ents. Thank you.	Approved by the Utah Division of Oil, Gas and Mining
		D B	ate: August 27, 2009 y:
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 8/26/2009	



### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

### Request for Permit Extension Validation Well Number 43047500800000

**API:** 43047500800000 **Well Name:** NBU 922-33ET

Location: 2446 FNL 0673 FWL QTR SWNW SEC 33 TWNP 090S RNG 220E MER S

**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 9/15/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

ire revision. Following is a checklist of some items related to the application, which should be verified.
<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated?</li> <li>Yes</li> <li>No</li> </ul>
• Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes No
• Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes No
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes No</li> </ul>
• Has the approved source of water for drilling changed?   Yes  No
• Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes No
• Is bonding still in place, which covers this proposed well?   • Yes   • No Utah Division of Oil, Gas and Mining
D : 11 P: 1

**Signature:** Danielle Piernot **Date:** 8/26/2009

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORD August 27

Bv:

	FORM 9		
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A		
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
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<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHC treet, Suite 600, Denver, CO, 80217 3779	<b>DNE NUMBER:</b> 9 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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TYPE OF SUBMISSION		TYPE OF ACTION	
,	☐ ACIDIZE	ALTER CASING	☐ CASING REPAIR
NOTICE OF INTENT Approximate date work will start: 9/15/2010	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
3/13/2010	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN ☐ OPERATOR CHANGE	☐ FRACTURE TREAT ☐ PLUG AND ABANDON	☐ NEW CONSTRUCTION ☐ PLUG BACK
	OPERATOR CHANGE     PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
Date of Space.	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIPE PROPOSED OF SO	DMPLETED OPERATIONS. Clearly show all pe		<u></u>
Kerr-McGee Oil & G extension to this A	las Onshore, L.P. (Kerr-McGee APD for the maximum time all with any questions and/or co	e) respectfully requests an owed. Please contact the	Approved by the Utah Division of Oil, Gas and Mining
		D B	ate: September 20, 2010 y: Supplies the supp
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 9/15/2010	



### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

### Request for Permit Extension Validation Well Number 43047500800000

**API:** 43047500800000 Well Name: NBU 922-33ET

Location: 2446 FNL 0673 FWL QTR SWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 9/15/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

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	ated on private land, has t ed?	the ownership changed, if so, h	as the surface agreement b	een
	any wells been drilled in t requirements for this loc	the vicinity of the proposed wel ation? 🔵 Yes 📵 No	l which would affect the sp	acing or
	nere been any unit or other of the proposed well?	er agreements put in place that	could affect the permitting	or operation
	there been any changes t the proposed location?(	o the access route including ow Yes <a> No</a>	nership, or rightof- way, w	hich could
• Has th	ne approved source of wa	ter for drilling changed? 🔘 Y	es 📵 No	
		hanges to the surface location of discussed at the onsite evaluate		equire a
• Is bor	nding still in place, which	covers this proposed well?	Approved k Yes No Utah Divisi Oil, Gas and	ion of
nature:	Danielle Piernot	<b>Date:</b> 9/15/2010		_
			C 4 1-	20 2010

Sign

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHOR PALE

## Federal Approval of this Action is Necessary

API Well No: 43047500800000

	FORM 9			
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A	
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
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Kerr-McGee Oil & G change the total dep the Mesaverde gro details. All of the or	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  DAMPLETED OPERATIONS. Clearly show all pertine is as Onshore, L.P. (Kerr-McGee) roth (TD) to include the Blackhaw oup for this well. Please see the as iginal information remains the sa with any questions and/or comm	espectfully requests to k formation, which is in attached for additional ame. Please contact the nents. Thank you.	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Columes, etc.  Approved by the Utah Division of Oil, Gas and Mining  ate: October 28, 2010	
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE		
Danielle Piernot  SIGNATURE	720 929-6156	Regulatory Analyst  DATE		
N/A		10/27/2010		



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

**DRILLING PROGRAM** COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE October 27, 2010 **NBU 922-33ET** WELL NAME TD 10,070' TVD 10,070' MD **FIELD** Natural Buttes **COUNTY** Uintah STATE Utah FINISHED ELEVATION 4,937 SURFACE LOCATION SW/4 NW/4 T 9S 2,446' FNL 673' FWL Sec 33 R 22E BHL Straight Hole 39.993081 -109.452019 NAD 83 Latitude: Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde Regulatory Agencies: BLM (MINERALS), BLM (SURFACE), UDOGM, Tri-County Health Dept. ADDITIONAL INFO **GEOLOGICAL MECHANICAL FORMATION** HOLE CASING MUD LOGS **TOPS DEPTH** SIZE SIZE WEIGHT 40' 14" 8-5/8", 28#, IJ-55, LTC 11' Air mist All water flows encountered while drilling will be reported to the appropriate agencies. Green River @ 1.188 Top of Birds Nest @ 1,53 Mahogany @ 1,90 Preset f/ GL @ 2,360 Note: 11" surface hole will usually be drilled ±400 below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. Wasatch @ 4,411' TVD Mud logging program TBD 4-1/2" 11.6# Cased hole logging program from TD - surf csg 7-7/8" Water / Fresh HCP-110 Water Mud or equivalent BTC/LTC csg 8.3-12.8 ppg 6,906' TVD Mverde @ MVU21 @ 7,795' TVD MVU1@ 8,410' TVD Sego @ 9,097' TVD Castlegate @ 9,209' TVD

MN5 @

TD@

Max anticipated

12.8 ppg

Mud required

9,656' TVD

TVD

10,070

10,070



### KERR-McGEE OIL & GAS ONSHORE LP

#### **DRILLING PROGRAM**

#### **CASING PROGRAM**

							DESIGN FACTORS			
	SIZE	INTERVA	L		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,360'	28.00	IJ-55	LTC	0.76	1.70	5.21
								10,690	8,650	367,000
PRODUCTION	4-1/2"	0	to	10,070'	11.60	HCP-110	BTC	4.83	1.29	3.91

<sup>\*</sup>Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.28

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.8 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 4,372 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.8 ppg) 0.65 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 6,588 psi

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to surface,	option 2 v	/ill be utilize	ed .	
Option 2 LEAD	1,860'	65/35 Poz + 6% Gel + 10 pps gilsonite	170	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	3,910'	Premium Lite II + 3% KCI + 0.25 pps	290	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,160'	50/50 Poz/G + 10% salt + 2% gel	1,290	20%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. No centralizers will be used.

### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: John Huycke / Emile Goodwin
DRILLING SUPERINTENDENT: John Merkel / Lovel Young

<sup>1)</sup> Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

Print Form

## BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG										
Submitted By ANDY LYTLE Phone Number 720.929.6100										
Well Name/Number NBU 922-33ET										
	Qtr/Qtr <u>SWNW</u> Section 33 Township 9S Range 22E									
_	e Serial Number UTU-01191/	•								
	Number <u>4304750080</u>									
•	<u>l Notice</u> – Spud is the initial pelow a casing string.	spudding of the we	ll, not drilling							
	Date/Time <u>01/13/2011</u>	11:00 HRS AM	РМ							
<u>Casir</u> time:	<u>ng</u> – Please report time casi s.	ing run starts, not c	ementing							
$\checkmark$	Surface Casing	RE	CEIVED							
	Intermediate Casing	JAI	N 1 1 2011							
	Production Casing	DIV OF O	IL, GAS & MINING							
	Liner	DIV. OF O	IL, CAS & MINERIO							
	Other									
	Date/Time <u>02/03/2011</u>	00:00 HRS AM	РМ							
<b>BOP</b> I	<u>E</u>									
	Initial BOPE test at surface	casing point								
	BOPE test at intermediate	casing point								
	30 day BOPE test									
	Other									
	Date/Time	AM [	РМ							
Rem	Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT									
435.828.0986 OR LOVEL YOUNG AT 435.781.7051										

	FORM 9		
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A		
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
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QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWNW Section: 3:	IP, RANGE, MERIDIAN: 3 Township: 09.0S Range: 22.0E Meridiar	n: S	STATE: UTAH
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	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT  Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
1/13/2011	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
DRILLING REPORT	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU PETE MARTIN RAN 14" 36.7# SCH SPUD WELL	MPLETED OPERATIONS. Clearly show all pool BUCKET RIG. DRILLED 20" ( EDULE 10 CONDUCTOR PIPE LOCATION ON JANUARY 13, 2	CONDUCTOR HOLE TO 40'.  CMT W/28 SX READY MIX 2011 AT 10:30 HRS.  Oi  FOF	•
NAME (PLEASE PRINT) Gina Becker	<b>PHONE NUMBER</b> 720 929-6086	R TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 1/14/2011	

	FORM 9		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A
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Kerr-McGee Oil & C change the surface h drilling program for a	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  DMPLETED OPERATIONS. Clearly show all perting Gas Onshore LP (Kerr-McGee) results in the state of the size FROM: 11" TO: 12 1/4" additional details. All other informations indersigned with any questions a you.	espectfully requests to '. Please see the attached mation remains the same and/or comments. Thank	Accepted by the Utah Division of Oil, Gas and Mining
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 1/10/2011	



### KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE January 6, 2011 **NBU 922-33ET** WELL NAME TD 10,070' TVD 10,070' MD **FIELD** Natural Buttes **COUNTY** Uintah STATE Utah FINISHED ELEVATION 4,937 SURFACE LOCATION SW/4 NW/4 673' FWL T 9S 2,446' FNL Sec 33 R 22E BHL Straight Hole 39.993081 -109.452019 NAD 83 Latitude: Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde Regulatory Agencies: BLM (MINERALS), BLM (SURFACE), UDOGM, Tri-County Health Dept. ADDITIONAL INFO **GEOLOGICAL MECHANICAL FORMATION** HOLE CASING MUD LOGS **TOPS DEPTH** SIZE SIZE WEIGHT 40' 14" 12.25' 8-5/8", 28#, IJ-55, LTC Air mist All water flows encountered while drilling will be reported to the appropriate agencies. Green River @ 1.188 Top of Birds Nest @ 1,53 Mahogany @ 1,90 Preset f/ GL @ 2,360 Note: 11" surface hole will usually be drilled ±400 below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. Wasatch @ 4,411' TVD Mud logging program TBD 4-1/2" 11.6# Cased hole logging program from TD - surf csg 7-7/8" Water / Fresh HCP-110 Water Mud or equivalent BTC/LTC csg 8.3-12.8 ppg 6,906' TVD Mverde @ MVU21 @ 7,795' TVD MVU1@ 8,410' TVD Sego @ 9,097' TVD Castlegate @ 9,209' TVD MN5 @ 9,656' TVD Max anticipated

10,070

10,070

TD@

Mud required

12.8 ppg

TVD



### KERR-McGEE OIL & GAS ONSHORE LP

#### **DRILLING PROGRAM**

#### **CASING PROGRAM**

							DESIGN FACTORS			
	SIZE	INTERVA	L		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,360'	28.00	IJ-55	LTC	0.76	1.70	5.21
								10,690	8,650	367,000
PRODUCTION	4-1/2"	0	to	10,070'	11.60	HCP-110	BTC	4.83	1.29	3.91

<sup>\*</sup>Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.28

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.8 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 4,372 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.8 ppg) 0.65 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 6,588 psi

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	290	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	430	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to surface,	option 2 v	/ill be utilize	ed .	
Option 2 LEAD	1,860'	65/35 Poz + 6% Gel + 10 pps gilsonite	280	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	250	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	3,910'	Premium Lite II + 3% KCI + 0.25 pps	290	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,160'	50/50 Poz/G + 10% salt + 2% gel	1,290	20%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. No centralizers will be used.

### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: John Huycke / Emile Goodwin
DRILLING SUPERINTENDENT: John Merkel / Lovel Young

<sup>1)</sup> Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

# **ENTITY ACTION FORM**

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city\_DENVER

state CO

zip 80217

Phone Number: (720) 929-6100

#### Well 1

API Number	Well	Name	QQ	QQ Sec Twp			Rng County		
4304750080	NBU 922-33ET		SWNW	33	98	22E	UINTAH		
Action Code	Current Entity Number	New Entity Number	s	pud Da	te	Entity Assignment Effective Date			
В	99999	2900	1	//13/201	1	1/	26/2011		
Comments:		1115m	11K			<del>' / '</del>	/		

MIRU PETE MARTIN BUCKET RIG. W5mvd

SPUD WELL LOCATION ON 01/13/2011 AT 10:30 HRS.

Well 2

API Number	Well f	Name	QQ Sec		Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	s	pud Da	l	Entity Assignme Effective Date	
omments:					<del></del>		

#### Well 3

API Number	Well	QQ	QQ Sec Twp			Rng County			
Action Code	Current Entity New Entity Number Number		S	Spud Date			Entity Assignment Effective Date		
Comments:		en e							

### **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

**RECEIVED** 

**GINA BECKER** 

Name Please Print)

Signature

**REGULATORY ANALYST** 

1/14/2011 Date

Title

(5/2000)

JAN 1 8 2011

		COUNTY: UINTAH							
	3 Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH						
CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA						
TYPE OF SUBMISSION									
□ NOTICE OF INTENT Approximate date work will start: □ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS ☐ CHANGE WELL STATUS ☐ DEEPEN ☐ OPERATOR CHANGE ☐	ALTER CASING CHANGE TUBING COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT PLUG AND ABANDON	☐ CASING REPAIR ☐ CHANGE WELL NAME ☐ CONVERT WELL TYPE ☐ NEW CONSTRUCTION ☐ PLUG BACK						
□ SPUD REPORT Date of Spud:  ✓ DRILLING REPORT Report Date: 2/7/2011	☐ TUBING REPAIR ☐ ☐ WATER SHUTOFF ☐ ☐	RECLAMATION OF WELL SITE SIDETRACK TO REPAIR WELL VENT OR FLARE SI TA STATUS EXTENSION OTHER	☐ RECOMPLETE DIFFERENT FORMATION ☐ TEMPORARY ABANDON ☐ WATER DISPOSAL ☐ APD EXTENSION  OTHER: ☐						
DISPLACED W/ 143 BBLS WATER. LIFT PRESSURE 250 PSI, BUMP PLOR HOLD 800 PSI FOR 5 MIN. FLOAT HELD. TOP OUT #1 W/ 100 SX SAME CEMENT. NO CMT TO SURFACE. WILL HAVE PETE MARTIN RIG TOP OFF SURFACE. WORT.									
NAME (PLEASE PRINT) Gina Becker	<b>PHONE NUMBER</b> 720 929-6086	TITLE Regulatory Analyst II							
<b>SIGNATURE</b> N/A		<b>DATE</b> 2/8/2011							

				-	
SUB	MIT AS	EMA	JL.		Print

Print Form

## BLM - Vernal Field Office - Notification Form

Subm Well Qtr/Q Lease	ator <u>ANADARKO</u> nitted By <u>DALTON KING</u> Name/Number <u>NBU 922-33</u> Qtr <u>sw/Nw</u> Section <u>33</u> e Serial Number <u>UTU-01191</u> Number <u>43-047-50080</u>	Phone Num ET Township <u>9</u>	ber <u>435</u> s R	828-0982 ange <u>22E</u>
	Notice – Spud is the initial pelow a casing string.	spudding of	the wel	l, not drilling
	Date/Time		AM 🔲	РМ 🗌
times	Surface Casing Intermediate Casing Production Casing Liner Other	ng run starts	_	
		casing poin	,	
	Date/Time <u>03/03/2011</u>	04:00	AM 🔽	PM
Rema	arks TIME IS ESTIMATED			

**RECEIVED** 

MAR 0 1 2011

DIV. OF OIL, GAS & MINING

SUNDF  Do not use this form for proposobottom-hole depth, reenter plu DRILL form for such proposals.  1. TYPE OF WELL Gas Well  2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSI  3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S  4. LOCATION OF WELL FOOTAGES AT SURFACE: 2446 FNL 0673 FWL QTR/QTR, SECTION, TOWNSHI	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A  6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES  8. WELL NAME and NUMBER: NBU 922-33ET  9. API NUMBER: 43047500800000  9. FIELD and POOL OF WILDCAT: NATURAL BUTTES  COUNTY: UINTAH									
Qtr/Qtr: SWNW Section: 33	3 Township: 09.0S Range: 22.0E Meridian: S	5	STATE: UTAH							
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA										
TYPE OF SUBMISSION		TYPE OF ACTION								
☐ NOTICE OF INTENT Approximate date work will start: ☐ SUBSEQUENT REPORT Date of Work Completion: ☐ SPUD REPORT Date of Spud:	ACIDIZE  CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION	ALTER CASING  CHANGE TUBING  COMMINGLE PRODUCING FORMATIONS  FRACTURE TREAT  PLUG AND ABANDON  RECLAMATION OF WELL SITE  SIDETRACK TO REPAIR WELL	□ CASING REPAIR     □ CHANGE WELL NAME     □ CONVERT WELL TYPE     □ NEW CONSTRUCTION     □ PLUG BACK     □ RECOMPLETE DIFFERENT FORMATION     □ TEMPORARY ABANDON							
✓ DRILLING REPORT Report Date: 3/16/2011	☐ TUBING REPAIR ☐ WATER SHUTOFF ☐ WILDCAT WELL DETERMINATION	☐ VENT OR FLARE ☐ SI TA STATUS EXTENSION ☐ OTHER	☐ WATER DISPOSAL ☐ APD EXTENSION OTHER:							
FINISHED DRILLING 11.6# P 110 PRODU 500 SX CLASS G PRE SX CLASS G 50/50 P CLAYTREAT WATER. F HELD. 25 BBLS LEA	FROM 2380' TO 10,073 ON MAICTION CSG. PUMP 40 BBLS SEEM LITE @ 12.3 PPG, 2.12 YD. POZ MIX @ 14.3 PPG, 1.31 YD. FINAL LIFT 3000 PSI, BUMPED AD CEMENT BACK TO PIT. ESTEANED PITS. RELEASED PIONEI 2011 @ 03:00 HRS.	ARCH 13, 2011. RAN 4 ½" PACER, LEAD CEMENT WA TAILED CEMENT W/ 1369 DISPLACED W/ 155 BBA PLUG @ 3500 PSI, FLOOR TOP OF TAIL 3400	Accepted by the Utah Division of Gas and Mining RECORD ONLY							
NAME (PLEASE PRINT) Gina Becker	<b>PHONE NUMBER</b> 720 929-6086	TITLE Regulatory Analyst II								
SIGNATURE N/A		<b>DATE</b> 3/16/2011								

	AIT.		

Print Fo

### BLM - Vernal Field Office - Notification Form

Ope	rator ANADARKO	Rig Name/# PIO	NEER 69							
Sub	mitted By <u>BRAD PEDERSEN</u>	Phone Number 435	-828-0982							
Otel	Name/Number NBU 922-33E	Township on								
Qu/ Lead	Qtr <u>sw/nw</u> Section <u>33</u> se Serial Number <u>UTU-01191</u>	i ownsnip <u>9s                                    </u>	Range <u>22E</u>							
API	Number <u>43-047-50080</u>									
Spud Notice - Spud is the initial spudding of the well, not drilling										
	below a casing string.									
	Data/Tima	AAA [ ]	D14 [							
	Date/Time	AM [	РМ 🔲							
Casi	ng – Please report time casi	ing run starts, not c	ementing							
time		,	J							
	Surface Casing									
	Intermediate Casing									
Z	Production Casing									
H	Liner Other									
<b>L</b>	Outer									
	Date/Time 3/14/2011	8:00 AM	PM 🗸							
		4								
BOP	<del>~~</del>									
H	Initial BOPE test at surface									
H	BOPE test at intermediate of 30 day BOPE test	casing point								
H	Other									
·										
	Date/Time	AM [	РМ 🗌							
	1									
кет	arks <u>TIME IS APPROXAMATE</u>									

RECEIVED
MAR 1 4 2011

OIL GAS & MINING

Sundry Number: 13937 API Well Number: 43047500800000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A
SUNDF	RY NOTICES AND REPORTS (	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen e Igged wells, or to drill horizontal laterals. Uso		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33ET
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047500800000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONI treet, Suite 600, Denver, CO, 80217 3779	<b>E NUMBER:</b> 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2446 FNL 0673 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: 3 Township: 09.0S Range: 22.0E Meridian: S	5	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE ☐ CHANGE TO PREVIOUS PLANS ☐ CHANGE WELL STATUS	☐ ALTER CASING ☐ CHANGE TUBING ☐ COMMINGLE PRODUCING FORMATIONS	☐ CASING REPAIR ☐ CHANGE WELL NAME ☐ CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN [	FRACTURE TREAT	□ NEW CONSTRUCTION □ PLUG BACK
SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE  SIDETRACK TO REPAIR WELL	☐ RECOMPLETE DIFFERENT FORMATION ☐ TEMPORARY ABANDON
✓ DRILLING REPORT	☐ TUBING REPAIR [	○ VENT OR FLARE ○ SI TA STATUS EXTENSION	☐ WATER DISPOSAL ☐ APD EXTENSION
Report Date: 3/31/2011		OTHER	OTHER:
THE SUBJECT V 03/31/2011 AT 12: SUBMIT	MPLETED OPERATIONS. Clearly show all pertinvell LOCATION WAS PLACED (00 PM. THE CHRONOLOGICAL) TED WITH THE WELL COMPLET	ON PRODUCTION ON WELL HISTORY WILL BE TION REPORT.  OIL  OIL	accepted by the Itah Division of , Gas and Mining R RECORD ONLY
NAME (PLEASE PRINT) Sheila Wopsock	<b>PHONE NUMBER</b> 435 781-7024	TITLE Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 3/31/2011	



### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

	WELL (	COMPL	ETION (	OR RE	CON	/IPLE	TIO	N REP	ORT	AND L	.OG			ease Serial 1 JTU01191		
la. Type o	f Well	Oil Well	. 🛭 Gas	Well	☐ Dı	ry (	Ot	ther					6. If	Indian, All	ottee or	Tribe Name
b. Type o	f Completion	ı ⊠ N Othe	lew Well er	☐ Wor	k Ove	r [	De	epen [	☐ Pluş	g Back	☐ Diff	Resvr.	7. Ų	nit or CA A	greeme	ent Name and No.
2. Name of KERR	f Operator MCGEE OII	L & GAS	ONSHORE	-IMail: d	ina.be	Contact	t: Gli	NA T. BE	CKER	1			8. L	ease Name	and We	ell No.
3. Address		73779		<u>,</u>				3a. Ph	one No	o. (include 9-6086	e area co	de)		PI Well No		43-047-50080
4. Location	n of Well (Re	·		nd in acco	ordanc	e with	Fede				L revi	ewed	10. 1	Field and Po	ool, or I	Exploratory
At surfa	ace SWNE	2446FN	IL 673FWL							1	by HS	SM)	11. 5	Sec., T., R.,	M., or	Block and Survey 9S R22E Mer SLB
At top p At total	orod interval	うつだい	رع لهر	1a				9.993082			2020 W	Lon	12. (	County or P		13. State
14. Date Spudded 01/13/2011 15. Date T.D. Reached 01/13/2011 16. Date Completed □ D & A ■ Ready to Prod.											<u> </u>	JINTAH Elevations ( 493	DF, KE 37 GL	UT B, RT, GL)*		
18. Total Depth: MD 10073 19. Plug Back T.D.: MD 10025 20. Depth Bridge Plug Set: MD																
TVD 10070 TVD 10022 TVD  21. Type Electric & Other Mechanical Logs Run (Submit copy of each) 22. Was well cored? No Yes (Submit analysis)											(Submit analysis)					
GRRCBL-BHV-SD/DSN/ACTR  Was DST run?  Was DST run?  Directional Survey?  No  Yes (Submit analysis)  Submit analysis)  Submit analysis)																
23. Casing a	nd Liner Rec	ord (Repo	ort all strings	set in we	ell)											
Hole Size	Size/G	rade	Wt. (#/ft.)	Top (MD		Botto (MD		Stage Cer Dept			f Sks. & of Cemen	Slurry t (BI		Cement 7	Гор*	Amount Pulled
20.000		000 STL	36.7				40					28				
12.250		25 IJ-55	28.0				367					20		<u> </u>	0	
7.875	4.5	00 P110	11.6		$\dashv$	10	065			<u> </u>	18	69			122	
													· · · · · · · · ·			
					$\dashv$					<del>                                     </del>						
24. Tubing	Record	<del></del>	<u> </u>	<u> </u>						L.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Size	Depth Set (M	(D) P	acker Depth	(MD)	Size	e I	Depth	Set (MD)	) P	acker De	oth (MD)	Size	De	pth Set (Mi	D) ]	Packer Depth (MD)
2.375		9517														
25. Produci	ng Intervals						26.	Perforation	n Reco	ord						
Fo	ormation		Тор		Botte	om		Perfe	orated	Interval		Size	1	No. Holes		Perf. Status
A)	WASA			6870		6872					O 6872	372 0.360 6 OPEN			<u> </u>	
B)	MESAVE	RDE		6918		9763		<del></del>		6918 T	O 9763	0.3	60	194	OPEN	l
C)									<u> </u>				-			
D) 27 Acid E	racture, Treat	ment Cer	nent Saucea	Eto		1				<del> </del>						
	Depth Interva		nent Squeez	, Lic.		<del></del>			Λ.	nount one	Trmo of	'Motorial	-			
		70 TO 97	763 PUMP 1	3,681 BE	LS SL	ICK H2	20 & 4	186,445 LE		mount and	1 Type of	Material	······································	<del></del>		·
					······	*****										
	ion - Interval		<b>.</b>	····												
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Ga M	as CF		ater BL	Oil Gr Corr. A		Gas Grav		Producti	ion Method		
03/31/2011	04/04/2011	24		0.0		3400.0		750.0						FLOW	/S FRO	M WELL
Choke Size	Tbg. Press. Flwg. 2357	Csg. Press.	24 Hr. Rate	Oil BBL	Ga Mi	as CF		ater BL	Gas:O: Ratio	il	Wel	l Status				
20/64	SI	3075.0		0		3400		750				PGW				
28a. Produc	tion - Interva	l B														
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Ga M			ater 3L	Oil Gr Corr. A		Gas Grav	rity	Producti	on Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Ga M			ater 3L	Gas:Oi Ratio	il	Wel	Status	L		RE	CEIVED
	SI	L							<u> </u>							CLIAED

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #107529 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

				·	<del></del>		·	······				
	duction - Interv	<del></del>	- Im	lou	To.	Tive	lon a	1.	···· · · · · · · · · · · · · · · · · ·	In the second		
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gra	s avity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	We	ell Status			
28c. Proc	luction - Interv	al D										
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Cort. API	Gas Gra	s avity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	We	ell Status			
29. Dispo	osition of Gas(	Sold, used	l for fuel, vent	ed, etc.)								
Show tests,	nary of Porous  all important including deptections.	zones of p	orosity and c	ontents there	eof: Cored e tool open	intervals and, flowing an	d all drill-stem d shut-in pressu	res	31. For	mation (Log) Mar	kers	
	Formation		Тор	Bottom		Descript	ions, Contents, e	etc.		Name		Top Meas. Depth
Attac	IEST ANY CH	ronologic	1126 1497 1988 4418 6900	6900 10073 edure): ry & final su		mpletion cl	hrono details					
1. El	e enclosed attace ectrical/Mecha andry Notice fo	nical Log		-		2. Geologi 6. Core Ai	=		3. DST Rep 7 Other:	oort	4. Direction	al Survey
34. I here	eby certify that	the forego	Electr	ronic Subm	ission #107	529 Verific	orrect as determined by the BLM S ONSHORE,I	Well Infor	mation Sy	records (see attach	hed instructio	ns):
Name	e (please print)	GINA T.		FUI KERK	MCGEL	OIL & GA			TORY AN	ALYST		
Signa	uture	(Electror	nic Submissi	on)			Date	05/04/201	11			
Title 18 U	J.S.C. Section aited States any	1001 and false, fict	Title 43 U.S. titious or frad	C. Section 1 ulent statem	212, make ents or repr	it a crime for esentations	or any person kn as to any matter	owingly an	d willfully jurisdiction	to make to any dep	oartment or ag	gency

### **Operation Summary Report**

Well: NBU 922-33ET Spud Date: 2/5/2011 Spud Conductor: 1/13/2011 Project: UTAH-UINTAH Site: NBU 922-33ET PAD Rig Name No: PROPETRO 11/11, PIONEER 69/69 Event: DRILLING Start Date: 1/10/2011 End Date: 3/16/2011

Active Datum: I Level)	RKB @4	1,955.00ft (a	above Mean	Sea	UWI: S	W/NW/	0/9/S/22/E	/33/0/0/26/PM/	N/2446/W/0/673/0/0
Date	Sta	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/4/2011	12:30	- 0:00	11.50	MIRU	01	Α	Р		MOVE RIG AND ALL EQUIPMENT FROM PREVIOUS LOCATION, START RIGGING UP
2/5/2011		- 13:30	13.50	MIRU	01	В	Р		DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOWIE LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP.FIGHT FROZEN EQUIPMENT/ MUD MOTORS "BOTH MOTORS FROZEN
	13:30	- 14:00	0.50	PRPSPD	01	В	Р		P/U 1.50 DEG BENT HOUSING HUNTING MTR SN 8066 . 7/8 LOBE .16 RPM. M/U Q506 SN 7016458 1ST RUN, W/ 6-18'S. INSTALL RUBBER
	14:00	- 15:30	1.50	DRLSUR	02	Α	P		SPUD SURFACE 02/05/2011 @ 14:00 DRILL 40'- 210' ('170, 113'/HR) WOB 15-20K RPM 40, MOTOR RPM 85, GPM 550, ON/OFF PSI- 980/740 UP/DOWN/ROT=53/48/49 CIRCULATING RESERVE
	15:30	- 16:30	1.00	DRLSUR	06	Α	Р		TOOH, PU AND ORIENT DIR TOOLS TIH T/210
	16:30	- 0:00	7.50	DRLSUR	02	Α	Р		DRILL 210'-910" ('700, 93'/HR) WOB 15-20K RPM 35, MOTOR RPM 93, GPM 550, ON/OFF PSI-980/740 UP/DOWN/ROT=52/45/49 CIRCULATING RESERVE PIT
2/6/2011	0:00	- 23:30	23.50	DRLSUR	02	Α	Р		DRILL 910'- 2380' (1470', 62.5'/HR) WOB 15-20K RPM 35, MOTOR RPM 93, GPM 550, ON/OFF PSI- 1490/1210 UP/DOWN/ROT=68/62/65 LOST TOTAL CIRC @ 1630', DRILL W/ AIRIATED H2O TO TD.
	23:30	- 0:00	0.50	DRLSUR	05	F	P		CIRC AND COND HOLE CLEAN
2/7/2011	0:00	- 4:30	4.50	DRLSUR	06	Α	P		TOOH, LDDS AND DIR BHA
	4:30	- 6:00	1.50	CSG	12	Α	P		RIG UP TO RUN SURFACE CSG, MOVE PIPE RACKS AND CATWALK, MOVE TRUCKS OFF LOCATION , MOVE CSG OVER TO WORK AREA.
	6:00	- 10:00	4.00	CSG	12	С	Р		HELD SAFETY MEETING, RUN CSG. RAN 51JTS OF 8-5/8", 28#, J-55, 8 RND SURFACE CSG W/ LTC THREADS. LANDED FLOAT SHOE @ 2352.55' KB. RAN BAFFLE PLATE IN TOP OF SHOE JT LANDED 2263.46' KB. FILL CSG @ 500', 1500', AND 2380'
									RIG DOWN AND RELEASE RIG 2/7/2011 @ 10:00

#### **US ROCKIES REGION** Operation Summary Report Spud Conductor: 1/13/2011 Spud Date: 2/5/2011 Well: NBU 922-33ET Project: UTAH-UINTAH Site: NBU 922-33ET PAD Rig Name No: PROPETRO 11/11, PIONEER 69/69 **Event: DRILLING** Start Date: 1/10/2011 End Date: 3/16/2011 Active Datum: RKB @4,955.00ft (above Mean Sea UWI: SW/NW/0/9/S/22/E/33/0/0/26/PM/N/2446/W/0/673/0/0 Level) P/U MD From Date Time Duration Phase Code Sub Operation (hr) Start-End Code (ft) 10:00 - 14:00 4.00 CSG 12 Ε P HOLD SAFETY MEETING, INSTALL CEMENT HEAD. PSI TEST TO 2000 PSI. PUMP 140 BBLS OF 8.3# H20 AHEAD, NO CIRC, PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. NO CIRC. PUMP 275 SX(187 BBLS) 11# 3.82 YIELD LEAD CEMENT, PUMP 250 SX (57.2 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). NO CIRC. DROP PLUG ON FLY AND DISPLACE W/143 BBLS OF 8.3# H20. LIFT PRESSURE WAS 250 PSI, BUMP PLUG AND HOLD 800 PSI FOR 5 MIN. FLOAT HELD. TOP OUT, PUMP 100 SX (20.4 BBLS) OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE) CMT FELL WAIT TWO HRS PUMP 100SX (20.4 BBLS) OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE)."NO CMT TO SURFACE" HAd PETE MARTIN TOP OFF SURFACE CMT WITH 195 SX (38.5 bbls) OF GROUT CMT. RIG DOWN CEMENTERS AND RELEASE CEMENTERS 14:00 HRS. CONDUCTOR CASING: Cond. Depth set: 40' Cement sx used: 28 SPUD DATE/TIME: 02/05/2011 14:00 SURFACE HOLE: Surface From depth: Surface To depth: 2,380 Total SURFACE hours: 32.5 Surface Casing size: 8.625" # of casing joints ran: 2352.55 Casing set MD: # sx of cement: 275/250/395 11/15.8/15.8/ GROUT Cement blend (ppg:) Cement yield (ft3/sk): 3.82/1.15/1.15 # of bbls to surface: 0 Describe cement issues: NONE Describe hole issues: LOST TOTAL CIRC # 1630' 3/1/2011 16:30 - 0:00 Ε RDRT MOVED PIPE BASKETS, CHOKE HOUSE, C 7.50 DRLIN1 01 Р CAN LOOSE TUBULARS, MUD FLOAT, PIPE

4/29/2011 3:26:42PM

3/2/2011

0:00 - 7:00

7.00

**RDMO** 

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RACKS, VARIOUS EQUIP. AND UPRIGHTS TO STAGE THEM AT THE NEW LOCATION. VERY ROUGH ROAD SO WE GOT A HEAD START ON

2

THE RIG MOVE.

RDRT PREPARE RIG F/ MOVE

						wydeni.	ary Report
Well: NBU 92		<del> </del>	<del></del>		: 1/13/20		Spud Date: 2/5/2011
Project: UTAF					BET PAD	) - <del> </del>	Rig Name No: PROPETRO 11/11, PIONEER 69/6
Event: DRILL		- h N 4		te: 1/10/2		(0 (0 (00 (F	End Date: 3/16/2011
Level)	: RKB @4,955.00ft (a	above Mean	Sea	UWI: S	VV/NVV/U/	9/S/22/E	E/33/0/0/26/PM/N/2446/W/0/673/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
	7:00 - 18:00 18:00 - 0:00	6.00	RDMO	21	E	P	SAFETY MEETING W/ WEST ROC, J&C CRANE, MOUNTAIN WEST, RDRT, SCOPE IN & LOWER DERRICK, SCOPE DOWN SUB, LOAD OUT TRUCKS, MOVED OUTER BUILDINGS & #1 PUMF ROAD GIVING AWAY(3 HRS WORKING ON ROAD W/ 1 DOZER 2 GRADERS, 3 LOADS PIT RUN), HAD TO PULL PUMPS, & ALL TRAILER LOADS UHILL W/ DOZER ASSIST, #2 PUMP TWISTED U-JOINTS AND PUMP HAD TO BE OFF LOADED ON BED TRUCK, CARRIER HAD DOZER, GRADER & FORKLIFT ASSIST AND IS STUCK ON THE HILL (ROADS ARE VERY MUDDY & SLICK DUE TO RUN OFF) 7 BED TRUCKS, 5 HAUL TRUCKS, 2 FORKLIFTS & CRANE ON LOCATION @ 07:00 SDFN @ 1800 WAIT ON DAYLIGHT
3/3/2011	0:00 - 7:00	7.00	MIRU	21	A	S	WAIT ON DAYLIGHT
3/4/2011	7:00 - 19:00 19:00 - 0:00 0:00 - 6:00	12.00 5.00 6.00	MIRU MIRU	21 01	B C B	P S P	S/M W/ WEST ROC, J&C CRANE, SET IN SUB, COOLING TOUR, PITS, PUMPS, MUD BOAT, GAS BUSTER, CARRIER ON LOCATION @ 14:00 ATTEMPTED TO SPOT IN CARRIER (LOCATION TO SHORT TO GET CARRIER ON MUD BOAT) CALLED OUT 240 TON CRANE, SET IN DD CAMP FINISH RIGGING UP CAMPS, CRANE ON LOCATION @ 16:30 R/U & SET CARRIER & HYDRAULIC UNIT, RAISE SUB & HALF MAST DERRICK, SET LP, 80% SET IN, 40% RIGGED UP, BED, 3 HAUL TRUCKS, 1 FORKLIFT & CRANE STARTED @ 07:00, CRANE SDFN @ 18:00, TRUCKS @ 19:00 ( 240 TON CRANE ON LOC @ 14:30 RELEASED @ 18:00 ) RIG UP ELECTRICAL, SUIT CASES, GAS BUSTER FLARE LINES, SET FLOOR PLATES R/ U YELLOW DOG, FLARE LINES, PASON LINE: & MISC
	6:00 - 20:00 20:00 - 23:00	14.00 3.00	MIRU	01	В	P	RURT, SCOPE UP DERRICK, R/U FLOOR, FINISH SETTING IN STAIRS, CAT WALK, BEAVER SLIDE, BUILD BERM TO CIRC PITS, (GRADER WORKED ON BACK YARD, HAULED IN 5 LOADS ROAD BASE TO SET BOILER & MUD LOGGERS CAMP)2 TRUCKS, FORKLIFT & CRANE STARTEL @ 07:00 CRANE RELEASED @ 09:30, TRUCK RELEASED @ 16:30, SET BOP, P/U KELLY INSTALL KELLY SPINNERS VISUALLY INSPECTED CASING HEAD NO LEAKS
				1 📅	. ^		NIPPLE UP BOP
	23:00 - 0:00	1.00	MIRU	15	A	P	S/M W/ B&C QUICK TEST, START TESTING BOP
3/5/2011	0:00 - 2:30	2.50	MIRU	15	A	P	TEST BOP, FLOOR VALVES, UPPER & LOWER KELLY VALVES, INSIDE & OUTSIDE KILL LINE & CHOKE VALVES, HCR VALVE,PIPE RAMS, BLINE RAMS, CHOKE MANIFOLD 250 PSI F/ 5 MIN 5000 PSI F/ 10 MIN, ANNULAR TO 250 PSI F/ 5 MIN, 2500 F/ 10 MIN, CASING TO 1500 F/ 30 MIN, R/D TESTER
	2:30 - 3:00	0.50	MIRU	14	В	P	CALIPER WEAR RING 8", INSTALL WEAR RING
	3:00 - 7:00 7:00 - 9:00	4.00 2.00	PRPSPD PRPSPD	06 08	A	P Z	S/M W/ KIMZEY & R/U , P/U Q506F BIT, INTEQ .20 RPG/1.5 BEND MOTOR, DIR TOOLS & ORIENT MWD, 11 DC, 3 HWDP, RIG REPAIR WORK ON AIR SPINNERS, LIGHT
							PLANT WENT DOWN, WORK ON LIGHT PLANT
	9:00 - 11:00	2.00	PRPSPD	06	A	P	P/U 53 JTS DRILL PIPE TO 2211', R/D KIMZEY
	11:00 - 12:30	1.50	PRPSPD	09	Α	Р	CUT & SLIP 110' DRILL LINE

4/29/2011 3:26:42PM

### **Operation Summary Report**

Spud Conductor: 1/13/2011 Spud Date: 2/5/2011 Well: NBU 922-33ET Project: UTAH-UINTAH Site: NBU 922-33ET PAD Rig Name No: PROPETRO 11/11, PIONEER 69/69 Event: DRILLING Start Date: 1/10/2011 End Date: 3/16/2011

Active Datum: RKB @4 955 00ft (above Mean Sea UWI: SW/NW/0/9/S/22/F/33/0/0/26/PM/N/2446/W/0/673/0/0

Active Datum: RKB @4,955.00ft (above Mean Sea Level)					UWI: SW/NW/0/9/S/22/E/33/0/0/26/PM/N/2446/W/0/673/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation			
	12:30 - 14:00	1.50	PRPSPD	23		Р	Y	PREPARE F/ SPUD CENTER RIG ON HOLE, INSTALL DRILLING RUBBER, DRIVE BUSHINGS, SECURE STACK, PRESPUD INSPECTION, BREAK CIRC THROUGH BUSTER HAD CRACK IN SIDE OF BUSTER WHERE FLARE LINE CONNECTS			
	14:00 - 19:00	5.00	PRPSPD	08	С	Z		REPLACE FUEL PUMP ON ROTARY MOTOR, REPAIR CRACK ON GAS BUSTER			
	19:00 - 21:00	2.00	PRPSPD	02	F	P		DRILL CEMENT,F.E & OPEN HOLE F/ 2253' TO 2394'			
	21:00 - 0:00	3.00	PRPSPD	02	В	P		DRILL F/ 2394' TO 2645' ( 251' @ 83.6 HR ) WOB 18, RPM 60, MMRPM 98, SPM #1 PUMP 65, #2 PUMP 65, GPM 492, UP/SO/ROT 85-83-84, ON/OFF 1197-888, DIFF 309, WATER W/ GEL & POLY SWEEPS, SLIDES 2475-2483 ,2665-2675 ,2760-2765 ,2855-2865			
3/6/2011	0:00 - 6:00	6.00	DRLPRO	02	В	Р		DRILL & SLIDE F/ 2645' TO 3203' (558' @ 93' HR ) WOB 18, RPM 60 MMRPM 98, SPM #1 PUMP 65, #2 PUMP 65, 492 GPM, UP/SO/ROT 88-84-86, ON/OFF 1197-888, DIFF 309, WATER W/ GEL & POLY SWEEPS, SLIDES 2665-2675, 2760-2765, 2855-2865, 3144-3159			
	6:00 - 16:00	10.00	DRLPRO	02	В	Р		DRILL & SLIDE F/ 3203' TO 3964' ( 761' @ 76.1' HR ) WOB 18-20, RPM 60, MMRPM 98, SPM #1 PUMP 65, #2 PUMP 65, GPM 492, UP/SO/ROT 107-97-100, ON/OFF 1493-994, DIFF 300-450, WATER W/ GEL & POLY SWEEPS, SLIDES 3234-3251, 3521-3543, 3616-3635, 3806-3833, 3901-			
	16:00 - 16:30	0.50	DRLPRO	07	Α	Р		RIG SERVICE			
	16:30 - 0:00	7.50	DRLPRO	02	В	P		DRILL & SLIDE F/ 3964' TO 4595' (631' @ 84.1' HR ) WOB 18-20, RPM 60, MMRPM 98,SPM #1PUMP 65, #2 PUMP 65, 492 GPM, UP/SO/ROT 118-105-111, ON/OFF 1461-1060, DIFF 305-404, WATER W/ GEL & POLY SWEEPS, SLIDES 4090-4103, 4186-4192, 4281-4291, 4379-4391, 4567-4577			
3/7/2011	0:00 - 6:00	6.00	DRLPRO	02	В	Р		DRILL F/ 4595' TO 5133' ( 538' @ 89.6' HR ) WOB18-20, RPM 60, MMRPM 98, SPM #1 PUMP 65#2 PUMP 65, GPM 492, UP/SO/ROT 125-110-120, ON/OFF 1464-1060, DIFF 305-404, WATER W/ GEL & POLY SWEEPS			
	6:00 - 17:30	11.50	DRLPRO	02	В	Р		DRILL F/ 5133' TO 6051' ( 918' @ 79.8' HR ) WOB 19-21, RPM 60-65, MMRPM 106, SPM #1 PUMP 70 #2 PUMP 70, 530 GPM,UP/SO/ROT 145-125-136, 0N/OFF 1650-1267, DIFF 360-547, WATER W/ GEL & POLY SWEEPS, LOST 400 BBLS WATER			
	17:30 - 18:00	0.50	DRLPRO	07	Α	Р		RIG SERVICE			
	18:00 - 18:30	0.50	DRLPRO	02	В	Р		DRILL F/ 6051' TO 6083'			
	18:30 - 20:30	2.00	DRLPRO	05	Α	Р		DUMP MUD PITS, FILL PITS W/ FRESH WATER, DISPLACE HOLE W/ FRESH WATER, START LIGHT MUD UP			
	20:30 - 0:00	3.50	DRLPRO	02	В	Р		DRILL F/ 6083' TO 6272' ( 189' @ 54' HR ) WOB 22-24, RPM 55-60, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 155-135-145, ON/OFF 1631-1197,DIFF 205-517, WT 8.8, VIS 36, HOLE SEEPING, PUMP LCM SWEEPS, LOST 80 BBLS MUD			
3/8/2011	0:00 - 6:00	6.00	DRLPRO	02	В	Р		DRILL F/ 6272' TO 6557' ( 285' @ 47.5' HR ) WOB 21-24, RPM 55-60, MMRPM 91, SPM 120, GPM 454,UP/SO/ROT 155-130-145, ON/OFF 1724/1197,DIFF 265-583, WT 9.2, VIS 33, LOST 40 BBLS TO SEEPAGE, PUMP LCM SWEEPS			

4/29/2011 3:26:42PM

### **Operation Summary Report**

 Well: NBU 922-33ET
 Spud Conductor: 1/13/2011
 Spud Date: 2/5/2011

 Project: UTAH-UINTAH
 Site: NBU 922-33ET PAD
 Rig Name No: PROPETRO 11/11, PIONEER 69/69

Event: DRILLING Start Date: 1/10/2011 End Date: 3/16/2011

Event: DRILLIN	IG			Start Da	te: 1/10/2	2011	1	End Date: 3/16/2011
Active Datum: F Level)	RKB @4	,955.00ft (a	bove Mean	Sea	UWI: S	W/NW/0/	9/S/22	/E/33/0/0/26/PM/N/2446/W/0/673/0/0
Date	1.00	rime art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
	6:00	- 16:00	10.00	DRLPRO	02	В	Р	DRILL F/ 6557' TO 7126' ( 569' @ 56.9' HR ) WOB 21-24, RPM 55-60, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 160-135-153,ON/OFF 1780-1350, DIFF 315-600,WT 9.3, VIS 35, 2% LCM
		- 16:30	0.50	DRLPRO	07	Α	P	RIG SERVICE, VISUALLY INSPECT DERRICK, FUNCTION ANNULAR
	16:30	- 0:00	7.50	DRLPRO	02	В	P	DRILL F/ 7126' TO 7505' ( 379' @ 50.5' HR ) WOB 20-24, RPM 50-55, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 180-130-157, ON/OFF 2013-1662, DIFF 344-657, WT 10.1, VIS 35, 5% LCM, LOST 130 BBLS TO SEEPAGE
3/9/2011		- 6:00	6.00	DRLPRO	02	В	Þ	DRILL F/ 7505' TO 7790' ( 285' @ 47.5' HR ) WOB 20-24,RPM 50-55, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 175/130/157, ON/OFF 2013-1662, DIFF 300-587, WT 10.3, VIS 35, 5% LCM
		- 13:30	7.50	DRLPRO	02	В	Р	DRILL F/ 7790' TO 8137' ( 347' @ 46.2' HR ) WOB 20-25, RPM 50-55, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 176-145-162, ON/OFF 2175-1705, DIFF 238-629, WT 10.8, VIS 36, LCM 6%
		- 14:00	0.50	DRLPRO	07	Α	Р	RIG SERVICE , FUNCTION PIPE RAMS
	14:00	- 0:00	10.00	DRLPRO	02	В	Р	DRILL F/ 8137' TO 8453' ( 316' @ 31.6' HR ) WOB 19-25, RPM 45-55, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 180-145-164, ON/OFF 2313 -1936, DIFF 342-511, WT 11.5, VIS 37, 5% LCM, LOST 80 BBLS TO SEEPAGE
3/10/2011		- 6:00	6.00	DRLPRO	02	<b>B</b>	Р	DRILL F/ 8453' TO 8620' ( 167' @ 27.8' HR ) WOB 19-25, RPM 45-55, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 180-145-154, ON/OFF 2313-1936, DIFF 342-511, WT 11.7, VIS 37, 7% LCM
		- 16:30	10.50	DRLPRO	02	В	Р	DRILL F/ 8620' TO 8960' ( 340' @ 32.3' HR ) WOB 17-22, RPM 55-65, MMRPM 91, SPM 120, GPM 454, UP/SO/ ROT 185-160-168, ON/OFF 2370-2035, DIFF 235-580, WT 12, VIS 39, LCM 7%
	16:30	- 17:00	0.50	DRLPRO	07	Α	Ρ	RIG SERVICE, FUNCTION ANNULAR
	17:00	- 0:00	7.00	DRLPRO	02	В	Р	DRILL F/ 8960' TO 9140' ( 180' @ 25.7' HR ) WOB 19-25, RPM 55-65, MMRPM 91, SPM 120, GPM 454, UP/SO/ROT 200-150-170, ON/OFF 2490-2130, DIFF, 228-576, WT 12, VIS 39, LCM 7% LOST 120 BBLS TO SEEPAGE
3/11/2011	0:00	- 6:00	6.00	DRLPRO	06	Α	Р	MIX & PUMP PILL TOOH, L/D DIR TOOLS, MOTOR, BIT
		- 8:00	2.00	DRLPRO	06	Α	Р	P/U Q 506FX BIT, INTEQ 1.1 GPR ADJUST MOTOR STRAIGHT, CHECK CENTER ON HOLE, TIH TO SHOE,
	8:00	- 9:30	1.50	DRLPRO	09	Α	₽	SLIP & CUT 60' DRILL LINE, FILL PIPE
	9:30	- 13:00	3.50	DRLPRO	06	Α	P	TIH TAG @ 8945
	13:00	- 15:30	2.50	DRLPRO	03	Α	S	KELLY UP, BREAK CIRC, WASH & REAM F/ 8945' TO 9140'
	15:30	- 16:00	0.50	DRLPRO	07	Α	Р	RIG SERVICE
	16:00	- 0:00	8.00	DRLPRO	02	В	Р	DRILL F/ 9140' TO 9370' ( 230 @ 28.7' HR ) WOB 20-22, RPM 50-65, MMRPM 50, SPM 120, GPM 454, UP/SO/ROT 195-150-176, ON/OFF 2260-2063, DIFF 142-387, WT 12, VIS 41, 7% LCM
3/12/2011	0:00	- 6:00	6.00	DRLPRO	02	В	Р	DRILL F/ 9370' TO 9525' ( 155' @ 25.8' HR ) WOB 18-24, RPM 45-60, MMRPM 50, SPM 120, GPM 454, UP/SO/ROT 195-150-176, ON/OFF 2260-2063, DIFF 142-387, WT 12,VIS 41, 7% LCM
	6:00	- 12:00	6.00	DRLPRO	02	В	Þ	DRILL F/ 9525' TO 9673' (148' @ 24.6' HR ) WOB 18-24, RPM 45-65, MMRPM 50, SPM 120, GPM 454, UP/SO/ROT 190-160-176, ON/OFF 2465-2264, DIFF 163-398, WT 12.2, VIS 40, 7% LCM

4/29/2011 3:26:42PM

### **Operation Summary Report**

Well: NBU 922-33ET Spud Conductor: 1/13/2011 Spud Date: 2/5/2011 Project: UTAH-UINTAH Site: NBU 922-33ET PAD Rig Name No: PROPETRO 11/11, PIONEER 69/69 Event: DRILLING Start Date: 1/10/2011 End Date: 3/16/2011

Active Datum: Level)	RKB @4	1,955.00ft (a	above Mean	Sea	UWI: S	W/NW/0	/9/S/22/E	/33/0/0/26/PM/N/2446/W/0/673/0/0
Date	Sta	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
	12:00	- 12:30	0.50	DRLPRO	07	Α	Р	RIG SERVICE, FUNCTION ANNULAR
	12:30	- 0:00	11.50	DRLPRO	02	В	Р	DRILL F/ 9673' TO 9989' ( 316' @ 27.4' hHR ) WOB 20-25, RPM 40-60, MMRPM 50, SPM 120, GPM 454, UP/SO/ROT 208-155-186, ON/OFF 2518-2370, DIFF 75-297, WT 12.2, VIS 42, LCM 6%
3/13/2011	0:00	- 4:30	3.50	DRLPRO	02	В	P	DRILL F/ 9989' TO 10073' TD @ 0430 3/13/2011 ( 84' @ 24' HR ) WOB 23-25, RPM 45-55, MMRPM 50, SPM 120, GPM 454, UP/SO/ROT 208-155-186, ON/OFF 2518-2370, DIFF 75-297, WT 12.2, VIS 42, 6% LCM
	4:30	- 6:00	1.50	DRLPRO	05	С	Р	CIRC FOR SHORT TRIP, PUMP PILL
		- 10:00	4.00	DRLPRO	06	E	P	SHORT TRIP TO CASING SHOE, TIGHT 9398, 8921-8786, 8524-8488, 4593, 4355-4320, 4076 20K TO 50K
		- 11:30	1.50	DRLPRO	06	E	Р	TIH TO 4200' ,FILL PIPE
	11:30	- 12:00	0.50	DRLPRO	07	Α	P	RIG SERVICE
	12:00	- 15:00	3.00	DRLPRO	06	E	Р	FINISH TIH , NO PROBLEMS
	15:00	- 17:00	2.00	DRLPRO	05	С	Р	CIRC & COND F/ LOGS, 10' FLARE , PUMP PILL
	17:00	- 20:30	3.50	DRLPRO	06	В	Р	TOOH TO SHOE ,TIGHT 9405, 8529 , 20K-40K
	20:30	- 23:00	2.50	DRLPRO	05	Α	Ρ	CIRC & COND F/ LOGS ( SHAKE OUT LCM )
	23:00	- 0:00	1.00	DRLPRO	06	В	Р	CONTINUE TOOH F/ LOGS
3/14/2011	0:00	- 1:30	1.50	DRLPRO	06	В	P	FINISH TOOH F/ LOGS , L/D MOTOR
		- 7:00	5.50	DRLPRO	11	С	Р	S/M W/ HALLIBURTON R/U & RUN TRIPLE COMBO ( LOGGERS DEPTH 10060' )R/D TOOLS
		- 12:00	5.00	DRLPRO	11	E	Ρ	P/U SONIC CASING INTEGRITY LOG & RUN IN HOLE CALIPERS NOT REACHING OUT FAR ENOUGH, ( HALLIBURTON DID NOT HAVE THE CORRECT TOOLS TO LOG CASING ) R/D HALLIBURTON
		- 15:00	3.00	DRLPRO	11	E	Р	S/M W/ WEATHERFORD, R/U AND RUN 60 ARM MULTI SENSOR CALIPER LOG, FROM 2380' TO WELL HEAD, R/D LOGGERS
		- 20:00	5.00	DRLPRO	06	Α	Р	P/U BIT, BIT SUB TIH, FILL PIPE @ SHOE & 6000'
		- 22:00	2.00	DRLPRO	05	С	Р	CIRC F/ LDDP, S/ M W/ KIMZEY & RIG UP L/D MACHINE, PUMP PILL
		- 0:00	2.00	DRLPRO	06	Α	P	LDDP
3/15/2011		- 7:30	7.50	DRLPRO	06	Α	Р	LDDP, BREAK KELLY, L/D BHA, PULL WEAR RING
		- 17:00	9.50	DRLPRO	12	С	P	S/M W/ KIMZEY CASING R/U & RUN 236 JTS 4.5, 11.6 P110 CASING, SHOES @ 10065', FLOATS @ 10025',TOP OF MARKERS @ 6876' & 4374'
		- 20:00	3.00	DRLPRO	05	D	Р	CIRC F/ CEMENT , R/D CASERS, S/M W/ BJ SERVICES, R/U CEMENTERS
		- 23:00	3.00	DRLPRO	12	E	P	PUMP 40 BBL PREFLUSH, 500 SX 12.3#, 2.12 YLD LEAD, 1369 SX 14.3#, 1.31 YLD TAIL, DISPLACE W/ 155 BBLS CLAYTREAT WATER, FINAL LIFT 3000 PSI, BUMPED PLUG @ 3500 PSI, FLOATS HELD, 25 BBLS LEAD CEMENT BACK TO PIT, EST TOP OF TAIL 3400', R/D BJ
		- 0:00	1.00	DRLPRO	14	Α	Р	FLUSH STACK, SET C22 SLIPS @ 115K, NIPPLE DOWN, CUT OFF CASING
3/16/2011	0:00	- 3:00	3.00	DRLPRO	14	A 	Р	NIPPLE DOWN, CLEAN PITS, RELEASE RIG @ 03:00, 3/16/2011 TO NBU 922-33OT

4/29/2011

		US ROCKIES REG	ION
	C	peration Summary	Report
Well: NBU 922-33ET	Spud C	onductor: 1/13/2011 Sp	oud Date: 2/5/2011
Project: UTAH-UINTAH		BU 922-33ET PAD	Rig Name No: PROPETRO 11/11, PIONEER 69/69
Event: DRILLING	Start Da	ite: 1/10/2011	End Date: 3/16/2011
Active Datum: RKB @4,955.00ft (abov	ve Mean Sea	UWI: SW/NW/0/9/S/22/E/33	/0/0/26/PM/N/2446/W/0/673/0/0
Date Time Du	uration Phase	<ul> <li>I TEMPORENT MICH. Sept. 11 (1) Control (1) Control (1) (1</li></ul>	MD From Operation
Start-End	(hr) DRLPRO	Code	(ft)  CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28  SPUD DATE/TIME: 2/5/2011 14:00  SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,380 Total SURFACE hours: 32.50 Surface Casing size: 8 5/8 # of casing joints ran: 51 Casing set MD: 2,352.6 # sx of cement: 275/250/100 Cement blend (ppg:) 11/15.8/15.8 Cement yield (ft3/sk): 3.82/1.51/1.15/ # of bbls to surface: 0 Describe cement issues: NONE Describe hole issues: LOST TOTAL CIRC @ 1630¹  PRODUCTION: Rig Move/Skid start date/time: 3/1/2011 16:30 Rig Move/Skid finish date/time: 3/4/2011 16:30 Total MOVE hours: 72.0 Prod Rig Spud date/time: 3/5/2011 19:00 Rig Release date/time: 3/6/2011 3:00 Total SPUD to RR hours: 248.0 Planned depth MD 10,070 Planned depth MD 10,070 Actual MD: 10,073 Actual TVD: 10,056 Open Wells \$: \$1,100,047 AFE \$: \$957,147 Open wells \$/ft: \$109.21  PRODUCTION HOLE: Prod. From depth: 2,394 Prod. To depth: 10,073 Total PROD hours: 154 Log Depth: 10060 Float Collar Top Depth: 10025.37 Production Casing size: 4.5, 11.6, P110 # of casing joints ran: 236 Casing set MD: 10,065.1 Stage 1 # sx of cement: 500 LEAD, 1369 TAIL Cement density (ppg:) 12.3 LEAD, 14.3 TAIL Cement density (ppg:) 12.3 LEAD, 14.5 TAIL Cement density (ppg:) 1
			Est. TOC (Lead & Tail) or 2 Stage : Describe cement issues: Describe hole issues: SOME LOSSES IN WASATCH TO SEEPAGE
			DIRECTIONAL INFO: KOP: Max angle:

4/29/2011 3:26:42PM

	US ROCKIES REG	
Well: NBU 922-33ET	Spud Conductor: 1/13/2011 S	pud Date: 2/5/2011
Project: UTAH-UINTAH	Site: NBU 922-33ET PAD	Rig Name No: PROPETRO 11/11, PIONEER 69/69
Event: DRILLING	Start Date: 1/10/2011	End Date: 3/16/2011
Active Datum: RKB @4,955.00ft (about Level)	ove Mean Sea UWI: SW/NW/0/9/S/22/E/33	8/0/0/26/PM/N/2446/W/0/673/0/0
Date Time C Start-End	uration Phase Code Sub P/U (hr) Code	MD From Operation (ft)
		Departure: Max dogleg MD:

4/29/2011 3:26:42PM 8

				ีบร	ROC	KIES F	REGION
			0	perat	ion S	umm	nary Report
Well: NBU 922	-33ET		Spud C	onductor	: 1/13/20	011	Spud Date: 2/5/2011
Project: UTAH-	-UINTAH		Site: NB	SU 922-3	3ET PA	D	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPL	ETION		Start Da	ite: 3/28/	2011		End Date: 3/31/2011
Active Datum: Level)	RKB @4,955.00ft (a	above Mean	Sea	UWI: S	sw/nw/0	0/9/S/22/	2/E/33/0/0/26/PM/N/2446/W/0/673/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
3/28/2011	7:00 - 8:30	1.50	COMP	48		Р	HSM, REVIEW RIGGING UP, PRE FRAC INTRUCTIONS. PROBLEMS W/ CANE APPROX DOWN TIME 1.5 HRS
	8:30 - 16:30	8.00	COMP	36	В	P	P/U RIH, PERFORATE LOWER MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE, 9,759'-9,763' 4 SPF, 90* PH, 16 HOLES. 9,733'-9,735' 4 SPF, 90* PH, 8 HOLES. 9,700'-9,702' 4 SPF, 90* PH, 8 HOLES. [32 HOLES] [MISS FIRE ON FIRST RUN, POOH FOUND BROKEN GROUND WIRE, FIXED PROBLEM RUN BACK IN HOLE SHOT STG 1] PRESSURE TEST SURFACE LINES TO 10,000#
·							FRAC STG #1] WHP=1,040#, BRK DN PERFS=4,432#, @=4.6 BPM, INJ RT=50.1, INJ PSI=6,204#, ISIP=3,578#, FG=80, PUMP'D 4,653 BBLS SLK WTR W/ 123,342# TLC, W/ 123,342# TOTAL PROP PUMP'D, ISIP=4,245#, FG=87, AR=50.7, AP=6,000#, MR=52.6, MP=8,352#, NPI=667#, 32/32 CALC PERFS OPEN. 100%
							PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,072', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE.  9,039'-9,042' 3 SPF, 120* PH, 9 HOLES. 8,976'-8,977' 3 SPF, 120* PH, 3 HOLES. 8,860'-8,862' 3 SPF, 120* PH, 6 HOLES. 8,804'-8,806' 3 SPF, 120* PH, 6 HOLES.
							FRAC STG #2] WHP=1,370#, BRK DN PERFS=3,138#, @=4.1 BPM, INJ RT=49.2, INJ PSI=5,148#, ISIP=3,075#, FG=.78, PUMP'D 867 BBLS SLK WTR W/ 26,676# 30/50 MESH W/ 5000# RESIN COAT IN TAIL W/ 31,676# TOTAL PROP PUMP'D, ISIP=3,193#, FG=.79, AR=49.7, AP=5,000#, MR=50.1, MP=5,777#, NPI=118#, 24/24 CALC PERFS OPEN. 100%
							PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,552', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE.  8,521'-8,522' 3 SPF, 120* PH, 3 HOLES. 8,505'-8,506' 3 SPF, 120* PH, 3 HOLES. 8,459'-8,461' 3 SPF, 120* PH, 6 HOLES. 8,446'-8,446' 3 SPF, 120* PH, 3 HOLES. 8,400'-8,401' 3 SPF, 120* PH, 3 HOLES. 8,382'-8,384' 3 SPF, 120* PH, 6 HOLES. [24 HOLES]
3/29/2011	7:00 - 7:15	0.25	COMP	48		Р	SWIFN.[WAITING ON SAND] HSM, POPOFFS WORKING PROPERLY,

4/29/2011 3:27:56PM

### **Operation Summary Report**

Well: NBU 922-33ET	Spud Conductor: 1/13/2011	Spud Date: 2/5/2011
Project: UTAH-UINTAH	Site: NBU 922-33ET PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date: 3/28/2011	End Date: 3/31/2011

Active Datum: RKB @4,955.00ft (above Mean Sea

Level)

UWI: SW/NW/0/9/S/22/E/33/0/0/26/PM/N/2446/W/0/673/0/0

Date	16、16、11、12件。	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
	7:15	- 7:15	0.00	COMP	36	E	Р	FRC STG #3] MESAVERE 8,382'-8,522' [24 HOLES]

FRAC STG #3] WHP=1,963#, BRK DN PERFS=3,938#, @=4 BPM, INJ RT=50.5. INJ PSI=5,445#, ISIP=3,012#, FG=.78, PUMP'D 2,403 BBLS SLK WTR W/ 91,904# 30/50 MESH W/ 5000# RESIN COAT IN TAIL W/ 96,904# TOTAL PROP PUMP'D, ISIP=3,250#, FG=.82, AR=50.5, AP=5,300#, MR=51.4, MP=6,904#, NPI=238# 24/24 CALC PERFS OPEN. 100%

PERF STG #41 P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,345', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE.

8,313'-8,315' 3 SPF, 120\* PH, 6 HOLES. 8,284'-8,285' 3 SPF, 120\* PH, 3 HOLES. 8,261'-8,263' 3 SPF, 120\* PH, 6 HOLES. 8,211'-8,212' 3 SPF, 120\* PH, 3 HOLES.

8,130'-8,132' 3 SPF, 120\* PH, 6 HOLES. [24 HOLES]

FRAC STG #41 WHP=991#, BRK DN PERFS=4,365#, @=4 BPM, INJ RT=50, INJ PSI=5,297#, ISIP=2,911#, FG=.79, PUMP'D 791 BBLS SLK WTR W/ 22,827# 30/50 MESH W/ 5000# RESIN COAT IN TAIL W/ 27,827# TOTAL PROP PUMP'D, ISIP=2,775#, FG=.77, AR=50.3, AP=5,150#, MR=52.7, MP=6,627#, NPI=-136#, 24/24 CALC PERFS OPEN. 100%

PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,093', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE.

8.062'-8.063' 3 SPF, 120\* PH, 3 HOLES. 8,043'-8,044' 3 SPF, 120\* PH, 3 HOLES. 8,014'-8,015' 3 SPF, 120\* PH, 3 HOLES. 7,919'-7,920' 3 SPF, 120\* PH, 3 HOLES. 7,901'-7,902' 3 SPF, 120\* PH, 3 HOLES. 7,887'-7,888' 3 SPF, 120\* PH, 3 HOLES.

7,868'-7,870' 3 SPF, 120\* PH, 6 HOLES, [24 HOLES]

FRAC STG #5] WHP=415#, BRK DN PERFS=3,316#, @=4.8 BPM, INJ RT=50.8, INJ PSI=4,425#, ISIP=2,769#, FG=.78, PUMP'D 1,011 BBLS SLK WTR W/ 34,016# 30/50 MESH W/ 5000# RESIN COAT IN TAIL W/ 39,016# TOTAL PROP PUMP'D, ISIP=2,769#, FG=.78, AR=49.7, AP=4,300#, MR=52.8, MP=7,011#, NPI=0#, 24/24 CALC PERFS OPEN. 100%

PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,710', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE.

7,678'-7,680' 3 SPF, 120\* PH, 6 HOLES. 7,657'-7,658' 3 SPF, 120\* PH, 3 HOLES. 7,550'-7,552' 3 SPF, 120\* PH, 6 HOLES. 7,530'-7,531' 3 SPF, 120\* PH, 3 HOLES. 7,502'-7.504' 3 SPF, 120\* PH, 6 HOLES. [24 HOLES]

FRAC STG #6] WHP=480#, BRK DN PERFS=3,019#, @=6.1 BPM, INJ RT=47, INJ PSI=4,820#, ISIP=2,645#, FG=.78, PUMP'D 1,923

2 4/29/2011 3:27:56PM

#### **US ROCKIES REGION Operation Summary Report** Well: NBU 922-33ET Spud Conductor: 1/13/2011 Spud Date: 2/5/2011 Rig Name No: ROCKY MOUNTAIN WELL Project: UTAH-UINTAH Site: NBU 922-33ET PAD SERVICE 3/3 **Event: COMPLETION** Start Date: 3/28/2011 End Date: 3/31/2011 Active Datum: RKB @4,955.00ft (above Mean Sea UWI: SW/NW/0/9/S/22/E/33/0/0/26/PM/N/2446/W/0/673/0/0 Level) P/U MD From Date Time Duration Phase Code Sub Operation Start-End Code (hr) (ft) BBLS SLK WTR W/ 70,434# 30/50 MESH W/ 5000# RESIN COAT IN TAIL W/ 75,434# TOTAL PROP PUMP'D, ISIP=3,012#, FG=.83, AR=49.4, AP=4,500#, MR=50.2, MP=5,528#, NPI=367#, 24/24 CALC PERFS OPEN. 100% PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,371', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. 7,340'-7,341' 4 SPF, 90\* PH, 4 HOLES. 7.298'-7.300' 4 SPF, 90\* PH, 8 HOLES. 7,268'-7,269' 4 SPF, 90\* PH, 4 HOLES. 7,159'-7,160' 4 SPF, 90\* PH, 4 HOLES. 7,086'-7,087' 4 SPF, 90\* PH, 4 HOLES. [24 HOLES] FRAC STG #7] WHP=581#, BRK DN PERFS=2,680#, @=5.6 BPM, INJ RT=48.8, INJ PSI=5,000#, ISIP=2,289#, FG=.75, PUMP'D 1,036 BBLS SLK WTR W/ 35,390# 30/50 MESH W/ 5,000# RESIN COAT IN TAIL W/ 40,390# TOTAL PROP PUMP'D, ISIP=3.058#, FG=.86, AR=49, AP=4.550#, MR=50.1, MP=6,032#, NPI=769#, 24/24 CALC PERFS OPEN, 100% PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,070', PERF MESAVERDE / WASATCH USING 3-1/8 EXPEND. 23 GRM, 0.36" HOLE. 7,039'7,040' 3 SPF, 120\* PH, 3 HOLES. 7,006'-7,007' 3 SPF, 120\* PH, 3 HOLES. 6,918'-6,922' 3 SPF, 120\* PH, 12 HOLES. 6,870'-6,872' 3 SPF, 120\* PH, 6 HOLES. WASATCH. [24 HOLES. FRAC STG #8] WHP=1,406#, BRK DN PERFS=2,023#, @=7.4 BPM, INJ RT=49.1, INJ PSI=4,555#, ISIP=2,317#, FG=.82, PUMP'D 997 BBLS SLK WTR W/ 46,856# 30/50 MESH W/ 5,000#

4/29/2011 3:27:56PM 3

Р

3/30/2011

6:45 - 7:00

0.25

COMP

48

RESIN COAT IN TAIL W/ 51,856# TOTAL PROP PUMP'D, ISIP=3,029#, FG=.82, AR=49.3,

CALC PERFS OPEN. 100%

KILL @=6820'

TOTAL BBLS=13,681 TOTAL SAND=486,445 GALS SCALE INHIB= GALS BIOCIDE=

AP=4,300#, MR=50.5, MP=5,605#, NPI=712#, 24/24

P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP

HSM & JSA W/ROYAL WELL SERVICE.

		US RO	CKIES REGIO	N
	O	peration	Summary R	Report
Well: NBU 922-33ET	Spud C	onductor: 1/13	/2011 Spud	Date: 2/5/2011
Project: UTAH-UINTAH	Site: NB	U 922-33ET F	PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Da	te: 3/28/2011		End Date: 3/31/2011
Active Datum: RKB @4,955.00ft (ab Level)	ove Mean Sea	UWI: SW/NV	N/0/9/S/22/E/33/0/0	0/26/PM/N/2446/W/0/673/0/0
	Ouration Phase (hr)	Code Sub	[2] 別年会長の大学会所は、国際のようなおおかり。	From Operation (ft)
7:00 - 17:30	10.50 COMP	31	P	MIRU ON NBU 922-33ET. SPOT EQUIP. WHP = 0 PSI.  ND FRAC VALVES NU BOPS. RU FLOOR & TBG EQUIP. PREP & TALLY TBG. PU BIT, POBS & XN NIPPLE. RIH ON 214 JTS NEW 2 3/8" 4.7# L80 TBG. TAG FILL @ 6780'. RD TBG EQUIP. RU PWR SWVL & PMP. EST CIRC. PT BOPS TO 3000 PSI. CIRC OUT 30' OF SND.  CBP #1) DRLG OUT HALCO 8K CBP @ 6820' IN 15 MIN. 200 DIFF PSI. RIH TAG FILL @ 7044. C/O 33' OF SDN. FCP = 40 PSI.  CBP #2) DRLG OUT HALCO 8K CBP @ 7070' IN 14 MIN. (-200) DIFF PSI. RIH TAG FILL @ 7360. C/O 29 OF SDN. FCP = 45 PSI.  CBP #3) DRLG OUT HALCO 8K CBP @ 7389' IN 11 MIN. 1000 DIFF PSI. RIH TAG FILL @ 7690. C/O 37 OF SDN. FCP = 250 PSI.  CBP #4) DRLG OUT HALCO 8K CBP @ 7727' IN 13 MIN. 500 DIFF PSI. RIH TAG FILL @ 8032. C/O 74 OF SDN. FCP = 180 PSI.  CBP #5) DRLG OUT HALCO 8K CBP @ 8106' IN 5 MIN. 0 DIFF PSI. FCP = 175 PSI. RIH 1 JT TO 8139'. PMP 2 BPM FOR 20 BBLS. LET WELL CLEAN UP ON ANNULUS FOR 20 MIN. SWI-SDFN.  FREEZE PROTECT WELL HEAD. PREP TO CONT. TO DRLG CBPS IN AM.
3/31/2011 6:45 - 7:00	0.25 COMP	48	Р	TO DRLG CBPs IN AM. HSM & JSA W/ROYAL WELL SERVICE.

4/29/2011 3:27:56PM

				US	ROCK	(IES R	EGION				
			O	perat	ion S	umm	ary Report				
Well: NBU 922-	-33ET		Spud C	onductor	: 1/13/20	11	Spud Date: 2/5	/2011			
Project: UTAH-	UINTAH		Site: NE	BU 922-3	3ET PAD	)		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3			
Event: COMPLI	ETION		Start Da	te: 3/28/	2011			End Date: 3/31/2011			
Active Datum: F Level)	RKB @4,955.00ft (a	above Mean	Sea	UWI: S	W/NW/0	/9/S/22/I	E/33/0/0/26/PM/N	I/2446/W/0/673/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation			
	7:00 - 12:00	5.00	COMP	44	С	P		WHP = 1760 PSI. EOT @ 8139'. BLOW DWN WELL. RIH TAG FILL @ 8327. C/O 27' OF SDN. FCP = 180 PSI.			
								CBP #6) DRLG OUT HALCO 8K CBP @ 8354' IN 8 MIN. 200 DIFF PSI. RIH TAG FILL @ 8518'. C/O 60' OF SDN. FCP = 450 PSI.			
								CBP #7) DRLG OUT HALCO 8K CBP @ 8568' IN 12 MIN. (-100) DIFF PSI. RIH TAG FILL @ 9052'. C/O 33' OF SDN. FCP = 330 PSI.			
								CBP #8) DRLG OUT HALCO 8K CBP @ 9085' IN 8 MIN. 500 DIFF PSI. RIH & TAG FILL @ 9857'. C/O TO 9985' (127'). PBTD @ 10024'. FCP = 856 PSI. CIRC WELL CLEAN.			
								RD PWR SWVL, RU TBG EQUIP. LD 15 JTS ON FLOAT, (15 TOTAL ON FLAOT). LND TBG ON HNGR W/300 JTS NEW 2 3/8" 4.7# L80 TBG @ 9518.66'. RD FLOOR & TBG EQUIP. ND BOP, DROP BALL, NUWH. PMP OFF BIT @ 2200 PSI. WAIT 30 MIN FOR BIT TO FALL TO BTM. TURN WELL TO F.B.C.			
								KB 18' HANGER 0.86' XN NIPPLE 1.33' 300 JTS TBG = 9496.53' XN NIPPLE @ 9515.86" EOT @ 9516.69' (315 JTS DLVRD - 15 JTS RTND)			
								TWTR = 14,041 BBLS TWR = 1,520 BBLS TWLTR = 12,521			
-	12:00 - 12:00	0.00	PROD	50				SICP = 2800 PSI, SITP = 3100 PSI.  WELL TURNED TO SALES @ 1200 HR ON 3/31/11 - 3000 MCFD, 1920 BWPD, FTP 2900#, CP 2650#, CK 20/64"			
4/1/2011	7:00 -			33	Α			T AM FLBK REPORT: CP 3400#, TP 2800#, 18/64" CK, 45 BWPH, HVY SAND, - GAS TTL BBLS RECOVERED: 2520 BBLS LEFT TO RECOVER: 11921			
4/2/2011	7:00 -			33	Α			7 AM FLBK REPORT: CP 3300#, TP 2650#, 18/64" CK, 35 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 3436			
4/3/2011	7:00 -			33	Α			BBLS LEFT TO RECOVER: 11005 7 AM FLBK REPORT: CP 3200#, TP 2500#, 20/64" CK, 28 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 4186 DBLS LEFT TO RECOVER: 1025E			
4/4/2011	7:00 -			33	Α			BBLS LEFT TO RECOVER: 10255 7 AM FLBK REPORT: CP 3050#, TP 2350#, 20/64" CK, 22 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 4786 BBLS LEFT TO RECOVER: 9655			

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### 1 General

### 1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

### 1.2 Well Information

Well	NBU 922-33ET	Wellbore No.	ОН
Well Name	NBU 922-33ET	Common Name	NBU 922-33ET
Project	UTAH-UINTAH	Site	NBU 922-33ET PAD
Vertical Section Azimuth	0.00 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	2/5/2011	UWI	SW/NW/0/9/S/22/E/33/0/0/26/PM/N/2446/W/0/6 73/0/0
Active Datum	RKB @4,955.00ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC DRILLING
Started	2/5/2011	Ended	
Tool Name	MWD	Engineer	Anadarko

### 2.1.1 Tie On Point

▲이 3 대성하실, 공급하게 보다 가능한 공통점 하는 공급 하다 중요한 이 모모를 되지만 하다. 그리스 전 다른 사람이 다른 것이다.	inc (°)	Azi T	VD (ft)	N/S (ft)	E/W (ft)
14.00	0.00	0.00	14.00	0.00	0.00

### 2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/5/2011	Tie On	14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/5/2011	NORMAL	103.00	0.85	73.65	103.00	0.19	0.63	0.19	0.96	0.96	0.00	73.65
	NORMAL	190.00	0.34	79.81	189.99	0.41	1.51	0.41	0.59	-0.59	7.08	175.92
	NORMAL	278.00	0.10	104.33	277.99	0.44	1.84	0.44	0.29	-0.27	27.86	170.54
	NORMAL	362.00	0.49	302.49	361.99	0.62	1.61	0.62	0.70	0.46	-192.67	-164.89
	NORMAL.	454.00	0.26	67.23	453.99	0.91	1.47	0.91	0.73	-0.25	135.59	161.49
	NORMAL	544.00	0.60	24.11	543.99	1.42	1.85	1.42	0.50	0.38	-47.91	-66.54
	NORMAL	634.00	0.53	18.08	633.98	2.24	2.17	2.24	0.10	-0.08	-6.70	-142.64
	NORMAL	724.00	0.66	50.77	723.98	2.97	2.70	2.97	0.40	0.14	36.32	85.91
	NORMAL	814.00	0.32	24.00	813.97	3.52	3.20	3.52	0.45	-0.38	-29.74	-158.94
and the second section of the second section	NORMAL	904.00	0.40	49.58	903.97	3.96	3.55	3.96	0.20	0.09	28.42	76.71
	NORMAL	994.00	0.58	70.79	993.97	4.31	4.21	4.31	0.28	0.20	23.57	56.15
2/6/2011	NORMAL	1,084.00	0.37	74.69	1,083.97	4.54	4.92	4.54	0.24	-0.23	4.33	173.19
	NORMAL	1,174.00	0.79	57.54	1,173.96	4.95	5.73	4.95	0.50	0.47	-19.06	-31.18
	NORMAL	1,264.00	0.48	57.91	1,263.96	5.48	6.57	5.48	0.34	-0.34	0.41	179.43
	NORMAL	1,354.00	0.17	0.94	1,353.95	5.81	6.89	5.81	0.46	-0.34	-63.30	-159.80
an order than the day on the second and second or	NORMAL	1,444.00	0.30	281.09	1,443.95	5.99	6.66	5.99	0.35	0.14	-88.72	-111.64
	NORMAL	1,534.00	0.57	229.82	1,533.95	5.75	6.09	5.75	0.50	0.30	-56.97	-82.74
CONTRACTOR OF THE CONTRACTOR CONTRACTOR	NORMAL	1,624.00	0.85	222.12	1,623.94	4.96	5.30	4.96	0.33	0.31	-8.56	-22.69
THE REPORT OF THE PERSON OF	NORMAL	1,714.00	0.67	230.44	1,713.94	4.13	4.45	4.13	0.23	-0.20	9.24	152.60
	NORMAL	1,804.00	0.74	199.00	1,803.93	3.25	3.85	3.25	0.43	0.08	-34.93	-95.72

### 2.1.2 Survey Stations (Continued)

Date	Туре	MD (ft)	lnc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/6/2011	NORMAL	1,894.00	1.11	191.71	1,893.92	1.85	3.49	1.85	0.43	0.41	-8.10	-21.31
	NORMAL	1,984.00	1.05	184.42	1,983.90	0.17	3.25	0.17	0.17	-0.07	-8.10	-117.21
	NORMAL	2,074.00	0.99	184.64	2,073.89	-1.43	3.12	-1.43	0.07	-0.07	0.24	176.38
Table on table them are approximated by the	NORMAL	2,164.00	0.85	193.02	2,163.88	-2.85	2.91	-2.85	0.22	-0.16	9.31	140.28
	NORMAL	2,254.00	0.85	222.10	2,253.87	-4.00	2.31	-4.00	0.47	0.00	32.31	104.54
April 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	NORMAL	2,344.00	0.76	221.17	2,343.86	-4.94	1.47	-4.94	0.10	-0.10	-1.03	-172.20

### 2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	SCIENTIFIC
Started	3/5/2011	Ended	
Tool Name	MWD	Engineer	Anadarko

### 2.2.1 Tie On Point

- 1 10 11553-9435 199 777万 853-85 0553 1553 1553 15 15 15 15 15 15 15 15 15 15 15 15 15	Inc (°)	Azi (°)	TVD (ft)	가다. 이번 1977년 이 시간 사람들이 되었다. 나는 살아가는 것도 있는 점점이 되었다. 생각	IM ft)
2,514.00	0.18	177.20	2,514.00	-6.52	0.94

### 2.2.2 Survey Stations

Date	Туре	MD (ft)	Inc (%)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
3/5/2011	Tie On	2,514.00	0.18	177.20	2,514.00	-6.52	0.94	-6.52	0.00	0.00	0.00	0.00
3/5/2011	NORMAL	2,609.00	0.79	178.17	2,609.00	-7.32	0.97	-7.32	0.64	0.64	1.02	1.26
and the Commence of the Armed Co. No.	NORMAL	2,704.00	0.09	182.83	2,703.99	-8.05	0.99	-8.05	0.74	-0.74	4.91	179.40
and the second s	NORMAL	2,799.00	0.54	186.93	2,798.99	-8.57	0.93	-8.57	0.47	0.47	4.32	4.92
	NORMAL	2,894.00	0.57	308.97	2,893.99	-8.72	0.51	-8.72	1.02	0.03	128.46	150.16
3/6/2011	NORMAL	3,083.00	0.67	197.56	3,082.98	-9.18	-0.56	-9.18	0.54	0.05	-58.95	-142.56
payment and our contract and and	NORMAL	3,274.00	0.93	323.18	3,273.97	-9.01	-1.82	-9.01	0.75	0.14	65.77	148.04
	NORMAL	3,464.00	0.55	241.70	3,463.96	-8.20	-3.55	-8.20	0.53	-0.20	-42.88	-147.34
to depose that we will not to	NORMAL	3,655.00	0.44	38.08	3,654.96	-8.06	-3.91	-8.06	0.51	-0.06	81.87	169.52
and the formation of some state of the	NORMAL	3,845.00	0.26	83.45	3,844.96	-7.44	-3.03	-7.44	0.17	-0.09	23.88	144.28
	NORMAL	4,034.00	0.75	61.52	4,033.95	-6.80	-1.51	-6.80	0.27	0.26	-11.60	-32.73
	NORMAL	4,224,00	0.83	116.23	4,223.93	-6.81	0.81	-6.81	0.38	0.04	28.79	111.76
	NORMAL	4,413.00	1.67	343.26	4,412.91	-4.78	1.25	-4.78	1.23	0.44	-70.35	-148.16
	NORMAL	4,601.00	1.92	330.81	4,600.82	0.59	-1.08	0.59	0.25	0.13	-6.62	-63.66
	NORMAL	4,790.00	0.71	341.05	4,789.76	4.46	-3.00	4.46	0.65	-0.64	5.42	174.10
3/7/2011	NORMAL	4,884.00	1.83	333.45	4,883.74	6.36	-3.86	6.36	1.20	1.19	-8.09	-12.36
	NORMAL	4,980.00	1.43	327.87	4,979.70	8.74	-5.18	8.74	0.45	-0.42	-5.81	-161.13
and the same are assessed to the same of the same are assessed to the same of	NORMAL	5,075.00	1.30	339.24	5,074.67	10.75	-6.20	10.75	0.32	-0.14	11.97	121.25
elated an account of addition for all the con-	NORMAL	5,389.00	1.05	319.67	5,388.61	16.28	-9.32	16.28	0.15	-0.08	-6.23	-131.45
	NORMAL	5,704.00	0.50	323.08	5,703.58	19.58	-12.01	19.58	0.18	-0.17	1.08	176.91
The section of the second control of	NORMAL	6,215.00	0.72	126.45	6,214.57	19.45	-10.77	19.45	0.24	0.04	31.97	170.17
3/8/2011	NORMAL	6,719.00	1.37	141.58	6,718.48	12.85	-4.48	12.85	0.14	0.13	3.00	30.69
ras romaniamen.	NORMAL	7,223.00	1.76	166.04	7,222.30	0.62	1.13	0.62	0.15	0.08	4.85	72.33
3/9/2011	NORMAL	7,730.00	2.43	182.04	7,728.96	-17.68	2.63	-17.68	0.17	0.13	3.16	49.30
er a sees a consultation of the consultation o	NORMAL	8,236.00	2.29	182.04	8,234.53	-38.50	1.89	-38.50	0.03	-0.03	0.00	180.00
3/10/2011	NORMAL	8,739.00	2.81	163.41	8,737.04	-60.36	5.05	-60.36	0.19	0.10	-3.70	-67.43
e programme and a second	NORMAL	9,082.00	2.46	166.83	9,079.68	-75.59	9.13	-75.59	0.11	-0.10	1.00	157.51
3/13/2011	NORMAL	9,998.00	2.46	166.83	9,994.83	-113.87	18.08	-113.87	0.00	0.00	0.00	0.00
3/16/2011	NORMAL	10,073.00	2.46	166.83	10,069.76	-117.00	18.82	-117.00	0.00	0.00	0.00	0.00